ORIGIN AND PROGRESS

OF

MEDICAL JURISPRUDENCE.

1776—1876.

A CENTENNIAL ADDRESS

BY

STANFORD E. CHAILLÉ, A.M., M.D.,
PROFESSOR OF PHYSIOLOGY AND PATHOLOGICAL ANATOMY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISIANA.

A REPRINT FROM THE
"TRANSACTIONS OF THE INTERNATIONAL MEDICAL CONGRESS,"

Philadelphia, September, 1876.

FOR THE BENEFIT OF

THE LEGAL AND MEDICAL PROFESSIONS
OF THE
UNITED STATES.

PHILADELPHIA:
1876.

PHILADELPHIA:
COLLINS, PRINTER,
705 Jayne Street.

ADDRESS.

MEDICAL JURISPRUDENCE owes its power to knowledge derived from every branch of medicine, but the law determines how far this power shall be utilized in the administration of justice. Hence, the development of Medical Jurisprudence has varied in different nations with the progress of medical science, and with the extent of its application to the protection of property, reputation, and life. Efficiency in this legal application varies with the appreciation of medical knowledge by the rulers of a nation; and (since an adequate appreciation is limited to the educated few, and is not yet disseminated among the mass of any people), it results, that laws more favorable to the culture of legal medicine are to be found in nations ruled by the educated few, than in those governed by the people. The unequal development of Medical Jurisprudence in different nations finds in these facts an explanation, in large part at least, and recalls the political axiom that "arbitrary powers well executed, are the most convenient," while "delays and inconveniences in the forms of justice are the price that all free nations must pay for their liberty in more substantial matters."[1]

The papal canon-laws,[2] originating many medico-legal questions, sowed in 1620 by the hand of Zacchias,[3] a pope's physician, the first sound seed of Medical Jurisprudence in the land of Columbus, then the home of Science and the Arts.[4]

[1] Blackstone, iv. p. 350. Blackstone's "Commentaries on the Laws of England" (four books) were published a century ago, viz. 1765 to 1769, and, hence, are frequently referred to.

[2] The "Corpus Juris Canonici," a compend of the canon-laws, is dated 1580.

[3] B. 2. This and all succeeding references to "B," refer to the Bibliography, with the numbers therein.

[4] From many facts which might be cited to prove this statement, as also that the development of medical jurisprudence in different nations has varied with their culture of medical science, the following quotation is selected from p. 142 of Russell's "History and Heroes of Medicine," London, 1861: "If we survey the social and political state of Europe from the twelfth to the sixteenth century, in its relation to the development of medical art, our attention is at once arrested by Italy, which at this period was far ahead of the rest of the world. Taking the number of Universities as an index of civilization, we find that before the year 1500, there were sixteen in Italy, while in France there were but six; in Germany . . . there were eight; and in Great Britain two; making sixteen in all—the exact number which existed in Italy alone. The Italian Universities were likewise no less superior in fame than in number to those of the North." Italy maintained this superiority during, and even after, the sixteenth century.

The new-born shoot, languishing in Italy, was transplanted in German soil, where it received such culture as nourished its growth, developed its fruit, and reproduced seed to germinate in other lands. To favoring legislation from 1532[1] to the present day, the fatherland owes its pre-eminence in Medical Jurisprudence. Germany, for two centuries, has had an organization of medico-legal officials, to whom alone it intrusts the duty, both to procure the medical facts needed by the courts, and to estimate the weight due such facts from whatever source obtained; it alone requires that these experts shall be especially educated, and provides medico-legal clinics[2] for their practical instruction. In 1650, Michiaelis[3] delivered the very first lectures on Legal Medicine, and as early as 1720 professorships of the same were founded by the state. By 1725, the celebrated works of Valentini, Teichmeyer, and Albertus,[4] had supplanted that of Zacchias; and since then a medico-legal literature more abundant than in all other languages has nourished the science of Medical Jurisprudence both at home and abroad. In fine, Germany, specially excelling in the Art, has consequently excelled in the culture of the Science.

France, from 1570 to 1692, enacted laws which, like those of Germany, favored the culture of Legal Medicine; but in 1692, medico-legal offices became hereditary and venal, and Legal Medicine languished until after the French Revolution. Since 1790, no nation has surpassed France in the culture of medical science; in addition, the judges appoint medical experts, who, since 1803, must be graduates in medicine, and must have attended one course of lectures, and have passed an examination on Legal Medicine, professional chairs of which were established by the state in 1794.[5] However, French authorities denounce their didactic instruction as insufficient for the education of experts, and declare the appointment of these by the judges, and the lack of skilled medico-legal officials to procure medical evidence, to be most unsatisfactory, and their whole system to be much inferior to the German. Still, France has at least a system, and meanly as this does apply the art, it has served to greatly stimulate the culture of the science, as has been notably illustrated since 1796[6] by French medico-legal literature. A critical appreciation of how much of this literature has been derived from Germany, and how much of medico-legal science without the art has been transported from Germany and France to Great Britain, and the United States, would, I fear, prove offensive to Gallic, and still more to Anglo-American, vanity.

Great Britain transmitted to this nation laws, barbarously conspicuous for the absence of provisions to apply medical knowledge to the administration of justice, and Anglo-American law continues to be, in large measure, hostile to Medical Jurisprudence. However, British laws have done something for the science, and a little for the art. For Great Britain has fostered medical education; did in 1803 found a chair of

[1] The Constitutio Criminalis of Charles V, 1532, (published in 1553) rendered it obligatory on the Courts to take the evidence of medical men in medico-legal cases.

[2] The first one established was at Vienna, about 1830; a second at Berlin, 1833; a third at Munich, 1865; and probably a fourth since 1870 at Strasbourg, where France had its only medico-legal clinic, 1840 to 1870. In France, Great Britain, and the United States, Medical Jurisprudence cannot be said to be practically taught, except as to Toxicology.

[3] University of Leipzig; Michiaelis was succeeded by Bohn.

[4] B. 29, 30, 31.

[5] Chaussier, in 1790, was the first lecturer, and Mahon, in 1795, (B. 115) the first professor. Foderé says the state enacted the first laws favorable to Legal Medicine in 1792.

[6] The date of the first French general treatise (B. 114).

Forensic Medicine in one University,[1] and now has such chairs in all its medical colleges (some of these conferring a special degree in State Medicine);[2] has by the Registration Act and other laws[3] greatly strengthened the medical profession; and has compelled its courts to accept expert evidence only from registered, and therefore educated, medical men. Still, "the crowned republic" remains destitute, as does its democratic American offspring, of popular, and hence of governmental, appreciation of the legal importance of medical knowledge, as is proved by the same lack of any system to secure the medical evidence of competent experts that characterized its laws when surgeons were barbers,[4] and when physicians were astrologers, sorcerers, and interpreters of dreams. What wonder that Germany and France began the study earlier, and have prosecuted it more successfully?

The States of this Union have, for the most part, left the culture of medical science to individual enterprise which supplies solely that which the private citizen demands—practitioners of medicine to heal the sick. The States have as yet made no demand for competent medical experts to aid the administration of justice, and have done nothing designedly for the culture of Medical Jurisprudence. What growth can this branch of State Medicine have as long as a State does not recognize even its existence? Before attempting to answer this question, it will be well—having now briefly examined the causes—to present as briefly some illustrations of the extent of the general progress of Legal Medicine.

To appreciate progress during any period, it is necessary to keep in mind the empire of the dead over the living; to recall some of the victories gained over superstition and ignorance during the preceding century, as well as during that now closing.

From 1620 to 1722, the authority of the father[5] of medico-legal science was supreme. He devoted chapters to Torture, Sorcery, Prophecy, Miracle, and Immaculate Conception. Admitting one hundred and fifty births at a labor, he skeptically doubted the three hundred and sixty-five brought forth by the prolific Countess of Henneberg! During this period doctors gravely discussed whether a woman could be got with child by the devil, or by a dream; and French judges legitimized an infant in a case where the husband had been separated four years from the mother, on the ground that the child owed its paternity to a dream.

Doctors taught that grossly deformed infants had a bestial parentage; judges, even in 1769, declared that they had "no inheritable blood" for

[1] University of Edinburgh: Dr. Duncan, Sr., in 1801, was the first English speaking lecturer on Forensic Medicine, and his son the first professor, in 1803. In this same University (chartered in 1582) was established, in 1726, the first English-speaking Medical Faculty, which conferred degrees on less than 300 graduates from 1726 to 1776. From 1705 to 1726 twenty-one medical degrees, which would now be deemed irregular, perhaps honorary, were conferred. Institutions for medical education were established in Italy, Germany, and France, long prior to 1705 or 1726.

[2] Each of the twenty-three medical colleges reported in England and Scotland in 1875, had a regular teacher devoted to Forensic Medicine; and some of these, at least those at Cambridge, Oxford, Edinburgh, and Dublin, confer a special degree in State Medicine on those applicants only who have already graduated in medicine, and have thereafter satisfactorily pursued this special study.

[3] The Registration Act was passed in 1858. "Glenn's Manual of the Laws affecting Medical Men," London, 1871, gives a list of 36 such laws from 1800 to 1870, and of these 25 from 1850 to 1870.

[4] Surgeons were barbers in England until 1745.

[5] B. 2.

a "reason too obvious and too shocking to bear a minute discussion,"[1] and the priest, encouraging doctor and judge, cried "Si tu es homo, te baptizo."

Until 1726 (Albertus), it was taught that, in presence of the murderer, his victim's wounds did "open their congeal'd mouths and bleed afresh," and courts accepted the testimony of medical experts to this miraculous bleeding of the corpse.[2] The effect upon a suspected homicide of touching the dead body of his supposed victim, continued to be a legal expedient within the nineteenth century.[3]

Unearthed bones served to convict men of murder, and yet these accusing bones, since not even human, were not those of missing men. A cranial foramen devised by nature, yet perverted by ignorance into an assassinating awl-hole, would have hung Thomas Bowman, but for accident.

Superstition, denouncing medico-legal autopsies even more fiercely than it now does cremation, did not permit these to become frequent until about 1750; and the work of the father of morbid anatomy,[4] a foundation stone of Legal Medicine, was not published until 1761. By superstition, and by ignorance of normal and morbid anatomy, of the causes of sudden death, of diagnostics, and of chemistry, Legal Medicine was powerless, when compared with its present state. So great was its helplessness, that a horrible atmosphere of suspicion encompassed the fear of death by poison. On those even suspected, the grossest legal abuses were everywhere inflicted; while those convicted were long boiled alive by English law, and burned (as late as 1780) by the French "Chambre Ardente,"[5] which was not abolished until 1791.

The highest medico-legal authorities[6] taught belief in ghosts, witches, and possession by the devil; and united with the clergy until 1752 in denouncing all disbelievers thereof as heretics and atheists. They found demoniacs for the jailor and the stake, where we find patients for the doctor and the asylum. The distinguished medico-legist, Hoffman, commended to the barbarity of the law those who "vomited nails, hair, wax, glass, or leather," as indisputable witches.[7] The "great and good" Lord Chief Justice Hale, prompted by the medico-legal testimony of the learned physician Sir Thos. Browne,[8] illuminated the stake with witches—exemplifying in 1664 the practice of Anglo-American witch-laws till 1727, laws not repealed until 1736.[9] Thus did the legal medicine of our ancestors, only five generations removed, persecute, drown, and burn thousands of the insane, as "fire-brands of hell," who were "moved and seduced by instigation of the devil."

[1] Blackstone, II. pp. 246-7.

[2] See plea of the great scholar and lawyer, Sir George McKenzie, in the "State Trial," 1688, of Sir Philip Stansfield, executed for the murder of his father.

[3] The latest American case was in New York in 1824. (See B. 349, I. p. 807.)

[4] Morgagni, B. 18.

[5] Instituted at the close of 17th century as a special remedy for poisoning, which had become a very frequent crime in Paris.

[6] Paré, Zacchias, Hoffman, Storck, Boerner, &c., (B. 100, 2, 34, 39).

[7] "De diaboli potentiâ in corpora." Hoffman died in 1742.

[8] Author of "Religio Medici," and also of "Pseudoxia Epidemica," or Vulgar Errors.

[9] The "witch-mania" originated with a papal edict in 1484. The last judicial executions for witchcraft were in England, in 1716; Scotland, 1722; Würzburg (Germany), 1749; Glarus (Switzerland), 1780. The witch-mania prevailed in New England, 1692 to 1727. Although the witch-laws were repealed in Great Britain in 1736, yet as late as 1760 supposed witches were murdered by mobs, and there were "witch-doctors" in 1838. In France there was a legal trial for witchcraft as late as 1818.

These few examples must suffice to recall the parentage of the Medical Jurisprudence of our century, and the facts that, with the impotence of science to aid the law, it adopted miracles as explanations, suspicion as proof, confession as evidence of guilt, and "torture as the chief witness,"[1] summoning the medical expert to sustain the accused until the rack forced confession.[2]

During the hundred years now closing, the progress of medicine has been greater than in all preceding time. To detail the means acquired to aid the law, would require the record of every medical discovery; for what one of these may not contribute to the administration of justice? This occasion precludes more than bare suggestions illustrative of the general progress of medico-legal science.

(1) Innumerable precious facts have been contributed by every branch of Anatomy, and especially by Pathological Anatomy. The study of putrefaction, fractures, burns, scars, marks, stains—in fine of every change and injury to be found on the living or dead body—has given the skilled expert a power (miraculous to the ignorant) to identify the body, to distinguish real from apparent death, to approximate the date of death, to decide whether it be due to morbid, accidental, or criminal causes, and often to point unerringly to the criminal.[3] So great is this power that medico-legal autopsies have become indispensable to justice; and, since 1837,[4] the Microscope, strengthening notably Anatomy as also Toxicology, has repeatedly released the innocent from the jailor's clutch, and delivered the culprit to the hangman.

(2) Diagnostics, aided by stethoscope, thermometer, and many other instruments[5] invented or newly applied since 1776, have stripped the malingerer of power to feign disease, become the corner-stone of Life Insurance, and aided the law in many other particulars.

[1] Montesquieu, 1748.

[2] It is true that in our motherland, England, torture was abolished in 1640 (a century and a half earlier than in continental Europe); but, to such extent did suspicion replace proof, and the single penalty of death overtake every species and grade of crime, that the law had much less need than now of medical experts. Prisoners accused of a capital crime were not permitted any witnesses until 1702 (Blackstone, IV, p. 360); an accusation of infanticide sufficed for conviction, unless there was one eye-witness to the birth, until 1802 (B. 153, p. 309); and "prisoners were first allowed the assistance of counsel" about 1830 ("Science of Law" by S. Amos, p. 312). Even in 1769 there was "a dreadful list of 160 capital offences," and, not content with this liberal supply of the halter, English laws provided for criminals horrible mutilations, as branding, castration, slitting the nostrils, cropping the ears, and cutting off the hand, with a medical expert to sear the stump; death by exposure and starvation ("Peine fort et dure"), till 1772, by beheading, by drawing and quartering, and by burning alive; and brutal persecution of widow and orphan by corruption of blood and confiscation. Yet Blackstone asserts (1769), with evident pride, that this "disgusting catalogue" when compared with the criminal codes of other European nations did "honor to the English law." It is calculated to soften impatient indignation to remember that "it cannot be justly regarded as a fault in [legislators] courts or jurics not to be in advance of the age in which they live"; and it is encouraging to recall that many of these barbarous laws were repealed because courts and juries did get so much in advance of them, that they could not be executed.

[3] Among errors credited by the profession and corrected within the 19th century may be mentioned here: the beliefs that the human hair could grow after death; that the wind of a canon-ball could destroy life; and that violent and fatal injuries, which at times do fail to leave any visible signs externally, might also fail to present any lesions internally.

[4] Schwann and Schleiden.

[5] Spirometer, Pneumatometer, Galvanic and Electric Batteries, Ophthalmoscope, Laryngoscope, Endoscope, Spectroscope, Sphygmograph, Cardiograph, Dynamometer, Æsthesiometer, etc.

(3) Obstetrics, until 1750 in the hands of ignorant midwives,[1] consequently remained a special nursery of mystery and credulity. During the present century, Obstetrical Jurisprudence has rescued from ignorant superstition monsters, retarded births, superfœtation, and hermaphrodism; has discovered new signs of pregnancy, and the significance of uterine moles[2] and hydatids; has appreciated the evidences of impotence, sterility, and "live-birth," and has discarded the hydrostatic test[3] as conclusive proof of the latter. In vindication of chastity, the signs of virginity[4] have been duly estimated, false have been distinguished from true corpora lutea,[5] and it has been proved that sexual connection "without consent" may be fruitful. Finally, the "jury of matrons" has been slowly despoiled of its authority to decide a question of pregnancy. It is mortifying to record that, in criminal cases, the laws of some of our States continue to regard "quickening" as proof of the very dawn of life; and yet add to this barbarism the inconsistency of admitting, in civil cases, the vitality of the embryo from the date of conception. More than a century ago, medico-legists,[6] abandoning a belief long universal, taught that life began months prior to, and was as sacred before as after, maternal sensation; but, to the encouragement of fœticide, this ancestral superstition[7] still prevails among a free people, and lingers in their laws.

(4) Chemistry, since 1789, when Lavoisier gave it a firm foundation, has enriched every science, bestowing such services on State Medicine as to necessitate the distinct department of Legal Chemistry. Two of many services may be mentioned: the murderer has been deprived of one refuge, which even professional credulity supplied—Spontaneous Combustion[8]—a mode of death yet to be witnessed by a skilled expert; but this interesting service is insignificant when compared with that rendered toxicology. Though poisons have become much more procurable and numerous, yet the skill of the medical chemist has so increased, that criminal poisoning has become, largely through this power, one of the most certainly detected, relatively infrequent, and least dreaded modes of death.

(5) By the knowledge acquired of the nervous system, medical science has influenced society and law to an extent difficult to over-estimate.

[1] A man-midwife was first employed with the greatest secrecy, in 1663. In England, men-midwives did not secure respectable professional position until 1783. Prof. T. G. Thomas writes that in the United States the subject of obstetrics has "been recognized as one of paramount importance and dignity" since 1767.

[2] The French Parliament decided in 1781 that virgins and nuns discharged moles (*i. e.* "blighted ova") without having had sexual connection. (B. 114, 2d Ed. I. p. 477.)

[3] The hydrostatic test was first practically used in legal medicine by Jan Schreyer in 1682, and was long accepted as conclusive proof of live-birth.

[4] Buffon, as also Foderé (B. 114, in the 1st Ed. of 1796, not in the 2d Ed. of 1813), Mahon (B. 115) and many others taught that there was no such thing as the Hymen.

[5] In the trial of Chas. Angus (Lancaster, England), for the murder of Miss Burns, in 1808, all the medical witnesses testified (to her dishonor) that all corpora lutea without distinction proved previous conception.

[6] Faselius, 1767; Haller, 1782; Farr, 1788, etc.

[7] "Absurd ecclesiastical canons handed this error down from one criminal code to another." B. 349, 11. pp. 9 and 1076; Foderé, etc.

[8] This debt is due chiefly to Liebig and Bischoff (Case of the Countess of Goerlitz, 1850). Casper wrote: "It is afflicting to be obliged in a serious scientific work in 1861 to still speak of the fable, spontaneous combustion." A human body reduced in a few moments to a cup of ashes! To the credulous in this matter, one is prompted to recall Velpeau's attitude in reference to the "vagitus uterinus," or capacity of the fœtus (inclosed in its membranes) to cry in utero—a belief long firmly attested and universally credited. Said Velpeau: "Since learned and credible men have heard it, I will believe it; but I should not believe it if I had heard it myself!"

In 1774, England enacted the first law evincing one touch of pity for the insane; in 1792, Pinel[1] adopted the first humane treatment of their disease. Since then, civilization has been slowly taught that those upon whom our grandfathers inflicted "the pains of Hell" in order to thus drive the devil out of bodies "accursed by God," are the most pitiably diseased of all our fellow creatures, and we are enabled to point with pride to the palatial asylums with which our laws have replaced the garrets, cellars, stables, and dungeons, where starved and tortured insanity once writhed in filth and chains.[2] The history of the Medical Jurisprudence of Insanity is eloquent with the increasing number and efficiency of the laws designed to protect both society and the sufferer; and with assurances of the extension of these laws from insanity to habitual intemperance.

Is it too much to claim that the progress of Psychological Medicine has strengthened the conviction that not only mental disease, but also hereditary organization, defective education, and circumstances for which society is more accountable than any of its units, do modify criminal responsibility in *fact*, and therefore should do so in *law?* Has not this special knowledge broadened man's charity, encouraged society's efforts to redeem its outcasts, and influenced the law's amelioration of its criminal code? Is it not forcing to the front that most important social question, the problem of heredity; thus disclosing an immeasurable field for the medical research and legislative labor of our descendants? In fine, is it not true that science, stripping nature of providential caprice and disheartening chance, divinely adorning her with eternal order and omnipotent law, has gradually established that the diseases and deformities of the mind are as much as those of the body subject to nature's laws; and that the lunatic, the drunkard, the criminal, the sage, and the fool are not the products of chance, but of laws as comprehensible, though not yet as well comprehended, as those governing that thunderbolt which, once in the hand of Jove, now traverses even the depths of the sea at man's command?

The part this nation has taken in the general progress of Medical Jurisprudence must now be considered, and to test our progress five inquiries will be instituted.

I. *What have our Laws done to apply medical knowledge to the Administration of Justice?*—In the United States there are probably forty-five thousand medico-legal autopsies made annually. The service of a skilled expert at these "coroner's inquests," which have exceptional opportunity and power to detect crime, is of inestimable importance; the opportunities there presented, if once lost, can never be regained. Further, our courts have annually from twenty-five hundred to treble this number of criminal trials necessitating medical testimony; and of these a large part originate from the coroner's inquests. If to these criminal be added all the medico-legal civil trials, it would be found, I doubt not, that our courts require medical evidence in not less than twenty thousand cases annually.[3] Whatever the number may be, it would indicate inade-

[1] B. 129.

[2] In New England, say "Wharton and Stillé," the insane were sold out to the lowest bidder, who starved them, and when violent chained them in stables.

[3] I have sought in vain for full and reliable statistics to illustrate numerically the importance of legal medicine. The numbers given are only approximative estimates based partly on some meagre British statistics cited by Guy and by Taylor, and partly on the

quately the number of citizens whose welfare is involved, and the extent to which society is interested in the efficient application of medical knowledge to the administration of justice.

Now, what are the methods which Anglo-American law adopts to secure in practice that "best attainable evidence" which in theory it demands? It entrusts medico-legal autopsies, which require special medical and some legal knowledge, to those having neither the one nor the other, except by accident; for, these coroners (whose inexperience our law insures by constant "rotation in office") owe their position wholly to political popularity, a qualification which a competent expert is most unlikely to possess. Are these unqualified officials supplied with efficient aid? If so, again by accident, since the law leaves it to chance, or the coroner, or to his still less qualified jury, to provide a medical expert; and, as is usual, accident and ignorance provide inexperience and incompetence. Could ingenuity devise for medico-legal autopsies any methods more inefficient than these, which Anglo-American laws, framed before the birth of Medical Jurisprudence, have barbarously perpetuated?[1]

On this Pelion of inefficiency our legislative giants have piled an Ossa of absurdity; for, besides these fatal defects in the primary legal proceedings, Anglo-American law, in order to secure "the best attainable evidence" for its courts, where poverty and dishonor as well as the halter are administered to the free citizen, clings to a method as sadly ludicrous as it is antiquated. To plaintiff and defendant the law gives full license to summon such medical witnesses as each has already found reason to

following facts as to New Orleans, La., for the year 1875. The total number of coroner's views and inquests was 1026; of these there were 268 inquests, and out of these grew 47 trials. Giving New Orleans 210,000 and the United States 40,000,000 population, the New Orleans statistics would indicate for the United States annually 8952 medico-legal criminal trials, growing out of 51,047 medico-legal autopsies, or coroner's inquests.

[1] Convincing reasons could be given in proof that the duties of coroners are discharged even worse in the United States than in England. The following facts indicate how the Anglo-American method works in the latter country. An Englishman writes (1876): "The coroner is elected for life by the rate-payers of his district [a superiority over the American method], and he is paid a good salary out of the county rates. In most cases he is a medical man who has studied the arts of popularity with more success than those of medicine, or he is a small country attorney who has failed in the higher paths of his profession." Dr. Wm. Farr officially reported as to England in 1868: When all the verdicts of coroners "for the first time came under review [another great superiority over the American lack of any such system], they were not at all creditable to the intelligence of the country. They conveyed the least possible information in the vaguest possible words." Prof. A. S. Taylor wrote in 1873: "The coroner's inquest affords no certainty for the detection of crime. It, in some instances, tends to screen a criminal." "In the course of thirty years' practice, at least fifteen cases of the exhumation of dead bodies were referred to me. On some of these inquests had been held, but no inspections were made. Verdicts of death from cholera or natural causes had been returned, and at intervals of from one to twenty-two months the bodies have been disinterred, and it was then proved that the deceased persons had died from poison." (See B. 358, I. p. 12.) The British Medical Journal (Jan. 1876) reports a glaring case of poisoning, undetected by the incompetent coroner. National attention was recently attracted to the same monstrous evil in the inquest of a Mr. Bravo. An English writer asserts that "almost every day, from all parts of England tales come up of the inadequacy and absurdity of the institution. Notice has been given to-day [May 23d, 1876] in the House of Commons, by an independent member on the ministerial side, that he will call attention to the office of coroner at an early day." Other facts indicate that England recognizes this evil better than does the United States, and therefore will probably correct it sooner. July, 1876, it was reported that "the practice of electing coroners has been condemned in the House of Commons by a unanimous vote. A bill for the reform of the office of coroner is soon to be brought in." See also B. 259, 274, and 330.

believe entertain opinions the most contradictory.[1] Who are these partisan witnesses thus summoned by the law to apply the power of medical knowledge to the administration of justice? Surely these legal representatives of science must be competent experts? No.—Well, experienced and educated physicians of repute? No.—Then, of course graduates, at least some fledgling hatched in nine months, and fully feathered with the plumes of every branch of medicine, Medical Jurisprudence included? No, not indispensable, since "as a general rule" it has been adjudged that any practitioner of medicine (that is, any man who dubs himself Doctor) has sufficient knowledge of medical science to furnish justice with its "best attainable evidence."[2] "O, [this] offence is rank, it smells to Heaven!"

Common sense would presume that laws, so prodigal to ignorance and pretension, would provide means to test the value of scientific opinions by eliciting the facts upon which, if valid, they must be founded. Not so; since these opinions are replies to questions, which often by their very structure comically prove entire ignorance of the facts involved; for they are propounded by lawyers to whom these facts are unknown. Finally, it would be presumed that the decision as to the weight due such opinions would be left to a judge or jury specially chosen. No, even this last poor boon is denied by the law!

With the power of medical science thus crippled at the coroner's inquest, then prostituted by the partisan opinions of incompetent experts, then perverted by advocates, and at last when emasculated of all vigor submitted for decision to those unable to estimate its weight; what wonder that such gross misapplication of medical knowledge brings upon it that public contempt which belongs justly to methods so monstrous, and to which true medical knowledge is a helpless, pitiable, and disgusted victim!

But these legal defects, so paralyzing to the past, so discouraging to

[1] Reference is often made to the well-known facts that the sound expert-evidence of the illustrious John Hunter was in 1781 overborne by the evidence of three ignoramuses, and that the testimony of the famous Denman was in 1806 set aside by the Court in favor of one male and two female quacks. The same system is continued, and therefore the same evils persist. Prof. A. S. Taylor reports now, as to England, that a good search and good pay can always find, in abundance, the witnesses needed on either side of any medico-legal issue. This is certainly true as to the United States. Some facts may be cited in illustration. I have personal experience in a suit (unsoundness of a slave) in which the medical experts were selected by one side *because of their well-known ignorance* of the special knowledge (auscultation) which the issue involved; and the judge decided that the whole medical testimony must be set aside, because the negative evidence of the incompetent sufficed to counterbalance the very positive affirmative testimony of the competent experts. Death, with a post-mortem examination, soon after the decision, conclusively proved that the ignoramuses deserved no consideration in justice, though they did receive equiponderant consideration in law. Whenever a notorious trial attracts public attention, the results of our defective laws become disgracefully apparent, as has been illustrated in recent years by the Steinecke-Schoeppe (1868), the Wharton-Ketchum (1872), and the Stokes-Fisk (1874) trials (B. 363, 344, 370). If the medico-legal proceedings are so discreditable in cases like these, exciting great public interest and engaging the best legal and medical talent, what probably are they in ordinary trials lacking these advantages?

[2] The text will be found fully sustained by reference to B. 317, pp. 131–2, B. 349, I. pp. 283–5, and B. 363, p. 406. However, Elwell (B. 330, p. 589) refers to eight decisions to the effect that "special knowledge must be fully established before a witness can be examined as an expert;" but had he stated by what slight proofs, and by what incompetent judges, this "special knowledge must be fully established," the apparent discrepancy would have practically disappeared. An eminent lawyer assures me that in the courts of my native State (Mississippi) the competency of a medical expert rests solely on his own oath; and that, when his own interests and reputation prompt such an oath!

the future of Anglo-American Medical Jurisprudence, are not the only disadvantages against which this nation has had to contend. It inherited from Great Britain not even a page of the literature, in fact nothing of Medical Jurisprudence except laws hostile to it. So destitute was it of those indispensable promoters of science, well endowed institutions, with libraries, laboratories, and museums; so exhausted by the war for independence; so closely occupied by the pressing demands of daily life; and so profitably absorbed by glorious efforts to present to civilization a savage continent, that every science seems to have required half our century to secure the conditions necessary to fairly begin its culture.[1] Another potent, yet ill-appreciated friend to science, pressure of population, now wanting in many, was long wanting in every State. Finally, while a European nation requires but one legislative body to reform its laws, our political system now necessitates the action of thirty-eight State-legislatures to embrace the entire nation.

Just consideration of all these impediments should incline other nations not to condemn, if we have done little for Medical Jurisprudence, but rather to wonder that we have done anything at all; and to congratulate us that, so great has been the diffusion of knowledge, so ardent the love of justice, we have in the main kept pace with, and in some particulars have even outstripped, our mother-land. Fairly we can claim no more; reasonably no more should be expected.

II. *What have our Medical Colleges done to cultivate and to disseminate a knowledge of Medical Jurisprudence?*—The first chair of Medical Jurisprudence was established by the "College of Physicians and Surgeons" of New York City, and filled by Prof. Stringham,[2] in 1813. In 1815 two other Colleges[3] had chairs devoted to the usual branches with Medical Jurisprudence attached to some one of these. In 1825 there were about twenty-two medical colleges; of these only one had a full chair, and only five others had even the fraction of a chair devoted to the subject.[4] At present (1875–6) there are sixty-four regular medical colleges (four of these for women). A report[5] as to forty-six of

[1] To illustrate this as to medicine, and also the practical difficulty encountered by the courts in securing, under our laws, the evidence of competent experts, the following facts are stated: Prof. S. D. Gross reports that in 1776 the United States had about 3000 practising physicians, of whom the great majority had never received a medical education, and those who had, were educated abroad. Prof. Austin Flint, Sr., reports that in 1776 our two medical colleges (one founded in Philadelphia in 1768, the other in New York City in 1770) had not graduated even fifty doctors of medicine, and that up to 1800 the five colleges then existing had graduated only about two hundred. Thacher's "History of Medical Science in the United States" reports that it was computed that in 1826 the United States had 10,000 "very easily graduated" doctors of medicine, and more than 15,000 practitioners without diplomas. Prof. John B. Beck wrote that, "at no period in the history of this country, it may safely be asserted, has empiricism flourished to the same fearful extent as at the present time [1845], notwithstanding our boasted improvements in other respects." In 1870, the United States had 62,383 practitioners of medicine; of these there were perhaps 47,000 "very easily graduated" doctors, and at least 15,000 quacks outside of professional ranks.

[2] Dr. Stringham was also the first lecturer on Medical Jurisprudence in the United States, viz., in New York City in 1804.

[3] In 1815, "The College of Physicians and Surgeons of the Western District of New York" appointed Dr. T. R. Beck "Professor of the Institutes of Medicine, and Lecturer on Medical Jurisprudence;" and the Medical Department of Harvard University (Cambridge, Mass.) appointed Dr. Walter Channing "Professor of Midwifery and of Medical Jurisprudence."

[4] See "Thacher's History of Medical Science in the United States, 1828."

[5] Due to the courtesy of (my colleague on this occasion) Prof. N. S. Davis, M.D., of Chicago, Ill. The forty-six graduate more than nine-tenths of all our annual graduates. The twenty-five graduate fully one-half of the whole number.

the most noted, shows that twenty-one do not profess to teach the subject; of the remaining twenty-five, only fourteen (and these not the best known and attended) have professorships devoted exclusively to Medical Jurisprudence, and, by five of these fourteen, students are taught to become *medical* experts by *lawyers*;[1] while the other eleven have Medical Jurisprudence "tacked on as a caudal appendage" to some one of the usual branches. In fine, only about one-half of even our best colleges profess to pay any special attention to the subject; and many facts could be cited to prove that the true significance of the whole matter, from 1813 to the present day, is correctly represented by the following quotations from one of the most prominent of our living medico-legists:—[2]

"There are very few of the medical colleges in which it is taught, and still fewer in which it takes rank as a distinct and independent branch along with the other departments. Usually when it professedly receives any attention at all, it is tacked on, as a sort of appendix, to some other branch with which it has no natural affinity whatever, as, *e. g.*, Obstetrics or Materia Medica. This is of course done to make a show on the programme, while the subject itself is not taught systematically to the student, if taught at all." "I very much doubt whether Medical Jurisprudence is ever made a qualification for graduation, even in those colleges where it is professedly taught as one of the regular branches."[3]

From these facts it is manifest that, since 1813, our colleges (the offspring of the enterprise of individuals, and not of the State) have made ineffectual efforts to cultivate that special knowledge which, while highly beneficial to the State, would not benefit the individual members of our profession any more directly than any other citizens. In fact, the States through these citizens have failed to provide honorable and profitable employment for medico-legal experts, and, therefore, the profession has not furnished them; and, however enlightened the colleges, however praiseworthy their efforts, they will continue to contend in vain against the obstinate "demand and supply law" of political economy.

The profession recognizes the absurdity of the popular and legal presumption that every practitioner is a medical expert; but the profession does not yet recognize sufficiently that even the most skilful healers of disease are neither necessarily nor generally medico-legists; and that the experience of other nations has fully proved that merely didactic lectures can never render medical graduates competent experts. Were this feasible, any such ideal education is now impracticable; for who will deny (1) that our two short courses of lectures are insufficient for proper instruction even in the fundamental facts indispensable to the education of practitioners of medicine; (2) that the fundamental facts for the practitioner are the same as for the medical expert; and (3) that society remunerates the one, while the State finds no use for the other? Finally, there is reason to fear that, until the State demands medical experts, the colleges, dependent on the student and not on the State for their existence, will be forced by these practical students to realize continually the

[1] Casper insists, with good reason, that the medico-legist should remain a physician; and become neither a lawyer, jurisconsult, nor judge, but simply an expert witness, who does need from the law thorough instruction in the "rules of evidence."

[2] John J. Reese, M.D., Professor of Medical Jurisprudence in the University of Pennsylvania. (See B. 247 and 362.)

[3] Some only of our Law Schools have professorships of Medical Jurisprudence; and there is good reason to believe that the general facts as to the Medical are fully applicable to the Law Schools, as far as instruction in Legal Medicine is concerned.

force of the homely adage, "you may take a horse to the water, but you cannot force him to drink."

III. *What new Facts have Americans added, by original research, to the common stock of Medico-legal Science?*—Restricting the list to researches designedly and specially medico-legal, it must be borne in mind that the sum total of these in all nations has not been very large, and that few should be expected in this country for reasons already stated. Prof. John C. Dalton (though to some extent anticipated by Coste (1849) whose researches were unknown to Dalton) was the first (1851) to make a rigid comparison between the corpus luteum of menstruation and that of pregnancy; and to distinctly indicate the differences which, during a certain period, enable the expert to determine from an inspection of the ovaries whether pregnancy has or has not existed.[1] Dr. Joseph G. Richardson announced in 1869 the important medico-legal discovery that, by the proper application of high powers of the microscope, human blood-corpuscles could with certainty be discriminated from those of certain animals;[2] thereby enabling the expert to refute such statements as criminals have often offered to explain the presence of condemnatory stains of blood. Though the justice of this claim has been questioned, yet some of the highest authorities emphatically sustain it; and this discovery has been usefully applied in several criminal trials.[3] Dr. Richardson deserves the additional credit of having called attention in 1875[4] to a simple method of so treating a blood-stain, of even microscopic size, that it can be successfully examined by the spectroscope and guaiacum test,[5] as well as by the microscope.

Researches by which error is exposed, or truth more firmly established, are often as important to science as those which discover new facts. Among such researches may be mentioned those of John B. Beck, on Ploucquet's[6] and on the hydrostatic test,[7] in 1817 and subsequently; of Horner, on the mucous membranes of the stomach and intestines, in 1827; of Gross, on strangling, in 1833; of Wetherill, on adipocere,[8] in 1855; and of Fleming, on blood-stains, in 1859.[9]

Contributions by my countrymen to the progress of Medical Jurispru-

[1] See B. 257; also, Coste's second livraison, "Histoire du Développement," 1849; and the adoption of Coste's views in Longet's "Traité de Physiologie," II. p. 88, 1850.

[2] "An objective $\frac{1}{2500}$ to $\frac{1}{3000}$ inch distinguishes human blood-corpuscles in stains (but not in dried masses of blood) from those of the ox, pig, sheep, cat, horse, deer, and goat." (See B. 320, 373, 374, 376, 377.)

[3] Since the delivery of this address, eminent microscopists have made on the preceding periods two criticisms. First, that the word "discovery" is misused—since it has long been known that the blood-corpuscles of the "certain animals" are much smaller than those of man, as also that high powers render this difference in size more apparent. Second, that the words "with certainty" demand a modifying explanation, since able observers declare that cases do occur wherein human corpuscles in dried stains shrink, so as to be as small as those of the "certain animals": hence, that the expert when confronted with such small corpuscles cannot swear "with certainty" whether these be human; but if the specimen of corpuscles approximate those of man in size, then the expert can swear "with certainty" that they are not those of any one of the "certain animals," inasmuch as corpuscles in dried stains do shrink, but do not enlarge. The issue thus raised is as to the amount of shrinkage of human red blood-corpuscles in dried stains; Dr. Richardson asserts that this does not exceed ten per cent.; while others assert that this may be thirty per cent., the corpuscle shrinking in size to $\frac{1}{4300}$, or even to $\frac{1}{5000}$ inch.

[4] B. 375.

[5] Van Deen, 1862, and A. S. Taylor, 1868.

[6] 1782.

[7] Jan Schreyer, 1682.

[8] Fourcroy, 1785–7.

[9] See B. 205, 215, 225, 267, 287. To this list might be added Brown-Séquard's experiments in 1851 on Cadaveric Rigidity. (Am. Journ. Med. Sci., Oct. 1851.)

dence during a century, present a field for investigation so extensive, that some of these contributions may have escaped my search, or may have been inadequately appreciated. To rectify, at least in some measure, any such defects, I present, with this address, a Bibliography of American Medical Jurisprudence, to which attention is invited. The next inquiry is:—

IV. *What culture of Medico-legal Science is evinced by our Literature?*

1. General Treatises.—The embryonic stage of medico-legal literature in our mother-tongue is attested by the following "footprints on the sands of time." Farr's "Elements of Medical Jurisprudence,"[1] an abridged translation of Faselius, was the first general treatise in the English language, and the only one from 1788 to 1815, when another worse little duodecimo was added by Bartley.[2] In 1816 Male contributed an insignificant "Epitome of Forensic Medicine,"[3] borrowed from Pleuck,[4] and in 1821 John Gordon Smith, M.D., published a small book, which was the first original and meritorious treatise in our language.[5]

In 1823 appeared, in two large octavo volumes, the American, Theodric Romeyn Beck's "Elements of Medical Jurisprudence,"[6] which, in spite of the merit of Smith's book, and of the greater merit of Paris's and Fonblanque's English treatise,[7] also published in 1823, quickly supplanted these wherever the English language was spoken. From the date of its publication, which may be deemed the origin, in fact, of Anglo-American medico-legal science, its twelve successive editions have ably kept pace with the progress of legal medicine. Filling many offices of trust and honor, a member of twenty American and seven foreign scientific societies, Prof. Beck[8] lived to witness the issue of ten editions of his treatise; of these, several were published in England, and even the prolific mother of medico-legal literature issued in 1828 a translated German edition. But to Beck's merit no testimony can be more convincing or pleasing than that gracefully given by the three eminent authors whose works eventually succeeded in largely supplanting his treatise in Great Britain. Traill, the distinguished Scotch professor and author, eulogizes it as "the best work on the general subject which has appeared in the English language;"[9] Guy "acknowledges his obligations in a special manner to Beck's learned and elaborate Elements of Medical Jurisprudence;"[10] and Taylor, than whom there is no higher living authority, testifies that he, when a student, was stimulated by Beck's work to study medical jurisprudence in 1825, when no lectures were delivered in England on the subject, and this book was the leading authority for both lawyers and physicians; and that it "will carry down" the author's "name to future years as one of the most erudite and distinguished writers on medical jurisprudence."[11]

To these testimonials from abroad may be added the eloquent eulogy of that son of America whom its medical profession delights to honor as one of its noblest representatives, and as its President on this occasion. His voice, generous to all, even loving to worth, declares that "this grand book" "was in its day the most comprehensive, able, and erudite production on the subject of which it treats in any language," and that it "constitutes a lasting monument to the genius, industry, judgment,

[1] B. 150, also 207. [2] B. 151. [3] B. 152, also 207.
[4] B. 47. [5] B. 153. [6] B. 209. [7] B. 154.
[8] Born in 1791; died in 1855. For the biographies of Drs. T. R. Beck, John B. Beck, and Moreton Stillé, see Gross's "American Medical Biography," 1861.
[9] B. 158, 2d Ed. [10] B. 161, 2d Ed. [11] B. 359.

and learning of its lamented author."[1] It is pleasing to learn from the same source that, in honoring this famous author, we are honoring the memory of a good and noble man; and this pleasure is enhanced by recalling the humble estimate which he himself accorded to his "world-renowned book." For his own statements were that his "highest ambition would be gratified" if his "collection of detached essays" should "in some tolerable degree" "prove useful." Knowing that these modest words will find a generous echo in the hearts of all noble men, to them is commended the fame of America's first and greatest medico-legal author.

In 1850, Prof. Amos Dean, a lawyer, published his brief but exeellent text-book, the "Prineiples of Medical Jurisprudence,"[2] which has passed through three editions.

A lawyer and a physician united to produee in 1855 the voluminous and admirable general treatise, "Wharton and Stillé's Medical Jurisprudence."[3] After completion, but prior to its publication, profession and country had eause to mourn the death of the young and gifted Moreton Stillé.[4] His legal associate, deriving from other able pens indispensable medical aid, has lived to issue three editions of a work which both professions accept as one of the highest standard authorities.

Evidence of our increasing appreeiation of legal medicine, as also of our obligations to foreign sources, is found in the republieation, since 1819, of nine books by British authors on the general subjeet, viz., Cooper's eollection of the earliest English tracts (1819), and the numerous valuable articles in the "Cyclopædia of Practical Medicine" (1845), which deserve mention with the general treatises of Ryan (1832), Chitty (1836), Traill (1841), Guy (1845), and Woodman and Tidy (1876); and of still greater value Taylor's "Manual," as also his "Principles and Practice of Medical Jurisprudenee" (1845 to 1873).[5]

2. Treatises, Essays, etc., on Special Subjects.—Besides the exeellent books of Ray, Elwell, Ordronaux, Wormley, Reese, and the New York "Medico-Legal Society," the essays and articles on speeial topies have been too numerous to permit full examination, or more than a partial sketch of this important branch of my subjeet.

Infanticide and fœticide received from Prof. John B. Beek attention in 1817;[6] and this thesis, enlarged and improved for the various editions of his brother's "great work," displays a combination of erudition, original research, sound sense, and rhetorical excellence, whieh render it one of the most elassical essays in the medical literature of the English language. Abortion has been further illustrated by the essays of Hodge (1839, 1873), Storer (1866, 1867), Heard (1868), and others;[7] as also by numerous valuable articles in our periodical literature.[8] Apparently inereasing with the pressure of population, this stain on modern eivilization has become one of the most serious and hopeless problems within the provinee of Legal Medicine, and demands the grave eonsideration of every enlightened citizen.

[1] See pp. 39, 65, "History of American Medical Literature" (1776–1876), by S. D. Gross, 1876.

[2] B. 254.

[3] B. 264.

[4] Born 1822; died 1855.

[5] B. 207, 245, 223, 231, 239, 246, 390, 247, 358.

[6] B. 205.

[7] B. 236, 279, 305, 309, 314, 310, 315, 325, 341.

[8] In the "Specimen Fasciculus of a Catalogue of the National Medical Library," 1876, pp. 24–5, are reported from our medical journals thirty-nine articles on this subject, since 1825, by Americans; of these, twenty-three have been published in the last ten years.

Elwell's "Malpractice and Medical Evidence"[1] (1860, 1871) and Ordronaux's "Jurisprudence of Medicine"[2] (1869) are very valuable works—legal rather than medical—and unique, it is believed, in medico-legal literature. In connection with malpractice, Hamilton's noted essay on "Deformities after Fractures"[3] (1855) and his standard treatise on "Fractures and Dislocations" (1860–1875) deserve mention, since more than half of all trials in the United States for malpractice have originated from the results of these injuries.[4]

Supplied with domestic editions of Orfila (1819, 1826), Christison (1845), and Taylor (1848–1875), on Poisons, and with Naquet's Legal Chemistry (1876),[5] native authors have produced two meritorious works on Toxicology. Wormley's "Micro-Chemistry of Poisons"[6] (1867) has received the most flattering commendation from the highest authorities, who report this book to be the result of original researches which enrich it with the treasures most valuable to science. No more will be said, because the author is not only living but present, and no praise from me can enhance the reputation of his work. The same considerations prohibit more than reference to Reese's excellent "Manual of Toxicology"[7] (1874), which has been republished in London.

On the most important specialty, America has produced one treatise, Ray's "Medical Jurisprudence of Insanity."[8] In 1838, when first published, there were few such treatises extant,[9] and it at once assumed, and throughout an English, a Scotch, and five American editions, has deservedly maintained, the first rank in Anglo-American medical literature. An able advocate of "moral mania"—the present battle ground in the Medical Jurisprudence of Insanity—Dr. Ray does not forget, while urging a larger charity for disease, to demand ample and better legal means to protect society. Besides this treatise, essays of value have been published by Hammond (1866, 1873), Fisher (1872), and Cowperthwait (1876),[10] and numerous meritorious reports and articles have richly adorned our periodical literature.[11] It would require a volume to do justice to the medico-legal labors of the Superintendents of our Insane Asylums, and to record the evidences of progress presented solely in the "American Journal of Insanity;" while some of the most valuable essays on this and other special subjects are to be found in the publications of the New York Medico-Legal Society.[12]

There are four other works which, treating incidentally of the Medical Jurisprudence of Insanity, deserve mention: the notable "Diseases of the Mind" (1812–1835), by Benj. Rush, a father of this republic and "the father of its medical literature;" Seguin's "Idiocy" (1866); Echeverria's "Epilepsy" (1870); and Hammond's "Diseases of the Nervous System" (1871–1876).[13]

Fourteen foreign books on insanity have been republished in the United States. Five treat specially of its legal relations, viz., those by

[1] B. 290. [2] B. 317. [3] B. 266.
[4] B. 330, pp. 55 and 587; and B. 213. [5] B. 206, 212, 244, 252, 389.
[6] B. 307. [7] B. 362. [8] B. 234.
[9] Viz.: Haslam's, 1807; Hoffbauer's, 1809; Georget's, 1827; Conolly's, 1830.
[10] B. 304, 338, 348, 385.
[11] B. 216, 265, 275, 278, 282, 283, 284, 285, 295, 296, 302, 304, 311, 316, 322, 323, 324, 327, 331, 332, 347, 353, 354, 357, 365, 366, 368, 369, 379.
In addition to the above, Dr. John S. Billings, U. S. A. (Surgeon-General's Library) has kindly furnished a selected list of 88 medico-legal articles by Americans on unsoundness of mind; of these, the first was in 1827; 79 since 1850; and 41 of the 88 since 1865.
[12] B. 363. [13] B. 203, 303, 321, 326.

Highmore (1822), Blandford (1871), Maudsley (1874), Sheppard (1875), and Browne (1876);[1] and nine treat of these relations incidentally, viz., those by Combe (1834), Prichard (1837), Esquirol (1845), Brierre de Boismont (1855), Bucknill and Tuke (1858), Winslow (1860, 1866), Maudsley (1867, 1871), Tuke (1873), and Wynter (1873).[2]

This incomplete sketch of our medico-legal literature attests that it has since its origin progressively increased, and that a very large proportion has been furnished during the last ten years; thus indicating a diffusion of this knowledge to an extent which encourages the hope that such appreciation of its importance is in growth as will insure its proper use.

That our progress in this literature may be properly estimated, as far at least as increase of quantity is concerned, it is indispensable to compare it with that of other nations. As concerns *general treatises*, this nation, beginning in 1823, has produced three;[3] Germany, beginning a century earlier, published at least forty before, and more than twenty since 1823;[4] France beginning in 1796 published nine before, and seven since;[5] and Great Britain, making its first creditable effort in 1821, published its second in 1823, and has issued eight since.[6] If a comparison as to *special treatises* be instituted, a like result ensues, and a search into periodical literature proves even more unfavorable. Since 1782, Germany alone has had, and now has, several journals of great merit devoted exclusively to Legal Medicine, from which flow, to the benefit of all nations, a constant stream of medico-legal knowledge. France has had, only since 1829, one of the ablest journals[7] in the world devoted to State Medicine, but not one to Medical Jurisprudence exclusively. Great Britain has no such journal, nor has this nation except in so far as represented, since 1874, by the valuable "Psychological and Medico-Legal Journal" of Prof. Hammond.

These facts tend to prove that the culture of medico-legal literature is proportionate to the use made of it by the law; and prompt the comment that, however valuable compilations may be, these and the progress of every science depend ultimately on original research, and the labor of practical workers. Germany has produced many, France several, and Great Britain one or two, practical medico-legal experts of widespread fame. This people has never had, nor is it likely to have, one, until it provides for him honorable and lucrative employment.

V. *What illustrations of medico-legal progress are to be found in the Institutions, Laws, and Judicial Decisions of our States?*—Originated by vital statistics, nourished by medical selection, protected by medical evidence, Life Insurance, the wondrous child of Medicine and Finance, encourages the hope that it will repay our science the debt it owes. Causing numerous medico-legal suits, its vast interests are deeply involved in the legal reforms indispensable to the progress of Medical Jurisprudence; for these interests are often sacrificed by the negligence of coroners,[8] the incompetence of experts, and the inefficiency of our medico-legal methods. While Life Insurance suits have most frequently grown out of intemperance and suicide, yet there would seem to be few medical issues on which they may not depend, even on whether death was due to consump-

[1] B. 208, 334, 371, 382, 388.
[2] B. 226, 232, 243, 270, 286, 297, 313, 335, 360, 361.
[3] B. 209, 254, 264.
[4] B. 29 to 94.
[5] B. 114 to 128.
[6] B. 153 to 164.
[7] Annales d'Hygiène et de Médecine Légale, Paris.
[8] The issue has recently been raised, in reference to a case, the subject of a coroner's inquest, whether death was due to intemperance or to heart-disease. A medico-legal autopsy would have probably prevented any such issue, but this was totally neglected.

tion or to diphtheria.[1] To illustrate the progress and extent of the medico-legal interests involved, it deserves record that, in 1840, there were in the United States only three or four companies having an insignificant amount of business; that in 1874 there were seventy-seven companies insuring $2,226,000,000 upon 910,000 policies; and that the annual average number of lives insured during the past three years has exceeded 200,000.[2]

The growth of Life Insurance is one of many examples which illustrate the fact that the importance of Medical Jurisprudence has constantly increased with the progress of medicine, and the requirements of civilization. None the less, there are instances where, through legal and other causes, the bounds of Legal Medicine have been restricted.

When suicide ceased to be a felony,[3] it ceased to concern Legal Medicine, except when the suicide's life was insured; feigned diseases have under our laws little importance; and, with the abolition of imprisonment for debt, and of slavery, there disappeared from the courts many medico-legal questions. To education,[4] Forensic Medicine owes a diminution of its duties in deciding the degree of criminal responsibility of the deaf and dumb; all of whom, long held as "legal idiots" under the "perpetual pupillage of the law," were disabled from making a contract, will, or valid marriage. Possessing no institutions for their education until 1817,[5] the United States had, in 1875, forty-eight institutions, with 5309 pupils, so that "nearly all the deaf mutes of school-age within the country are now receiving instruction"; and, since "all pupils on leaving school take their places as responsible members of society, in possession of full civil rights," they cease to be of special medico-legal interest.[6]

In this, as in every civilized nation, the best examples of medico-legal progress are furnished by the institutions, laws, and decisions benefiting

[1] I have been summoned (1876), as a medical expert, to testify to my opinion as to whether a death was due to consumption, as the main issue, and, secondarily, whether due to consumption or to diphtheria.

[2] For these statistical facts I am indebted to Mr. C. C. Hine, Editor of the Insurance Monitor, No. 176 Broadway, New York City. Mr. Cornelius Walford, of London, the highest authority on this subject, has kindly furnished, for comparison with the United States, the following among other interesting facts: Life Insurance was begun in the United Kingdom (Great Britain) on a scientific basis in 1762, and reached its maximum in 1865–1868; in 1874 there were 120 companies, which issued 47,516 policies, and had in force an unstated number of total policies insuring £362,238,534. In France it was first legalized in 1787, and fettered with many legal restrictions which were removed in 1819; in 1870 there were 166,474 Life Policies, insuring £66,312,000, and 58,572 annuity contracts, securing annual annuities amounting to £1,528,600; and in 1874 there were 72 companies, having in force an unstated number of total policies insuring £49,906,400. In Germany (including German Austria and German Switzerland) Life Insurance was begun in 1827; in 1874 there were 51 companies, having in force 645,989 policies insuring a little under £100,000,000; and the new policies issued in one year (1873) were 98,692.

[3] By English law the suicide was required to be buried in a highway "with a stake driven through the body" (repealed in 1823), and his property confiscated. Juries, more humane than the law, generally decided that suicides were insane, and therefore irresponsible. Beck in 1823 (B. 209, 1st Ed.) congratulates the United States that "we do not war on the dead body in this country."

[4] The Abbé de l'Epée published in 1759 the first modern method to teach mutes, by sign-language. To him and to his disciple, the Abbé Sicard, civilization owes the initiation of the education of mutes. The first educational institution was established in France in 1760. Europe had about thirty of these institutions in 1817.

[5] The first institution founded in the United States was the American Asylum, Hartford, Conn., 1817.

[6] I am greatly indebted for the above statistical and other interesting facts to Mr. I. L. Peet, Superintendent of the New York Institution, the second one founded in the United States, viz., in 1818. (See B. 340.)

all who, no longer possessed or seduced by a legalized devil, are in fact afflicted with "unsoundness of mind," from mental disease, deformity, or debility.[1] By legislation many measures (still very incomplete in most, and not complete in any, of our States) have been adopted for the counter-protection of both the insane and the sane. The corner-stone of these measures has been the establishment of Insane Asylums. Beginning our national existence with two of these, having only eleven in 1830, we now possess about eighty public asylums, accommodating more than 30,000 of our 45,000 insane population.[2] The knowledge derived from these schools for scientific observation, is destined to benefit those without, even more than those within, their walls. Stimulated by this knowledge, the law is extending its protection, from insanity, to all who by intemperance "have lost the power of self-control." In this reform, New York, in 1854, pioneered the way with the first legislation providing for the restraint in a public asylum of habitual drunkards. In 1858, this State, as also Massachusetts, supplied the asylums indispensable for the execution of the law. With an origin thus recent, there are now at least seven asylums in five States, and four additional States have legislated to accomplish the same end.[3] The best interests of society require that this progress shall continue until the laws of every State provide for every person, whose abuse of his own liberty outrages the rights of others, ample protection both for himself and for society.[4]

Maine and New York illustrate additional progress in the jurisprudence of insanity. It is conceded that, within this century, unfortunates have been legally murdered for illegal acts, the product of disease and not of a "vicious will." To prevent these "bitter mockeries of justice," Anglo-American law, so jealous of the "liberty of the subject," fails not only to provide him, when his life is imperiled through brain-disease, with competent experts, but also to provide these with proper time and opportunity to decide a question so difficult as doubtful sanity. It is not strange that decisions reached through such defective means should cause constant dissatisfaction, nor that this should have been more serious prior to the establishment of State Lunatic Asylums; for it then occurred that he who might be acquitted of homicide, because of insanity, was freed by the law, and permitted to live a constant danger to society.[5]

Maine, in 1847, wisely enacted that "when any person is indicted for a criminal offence, or is committed to jail on a charge thereof, . . .

[1] This progress has been especially notable since 1830.

[2] For these statistics I am indebted to Dr. John P. Gray (my colleague on this occasion), who reports 54 State Asylums in 1875, accommodating 21,542 patients; 9 State Asylums in process of erection to accommodate 4600; 18 other public asylums accommodating 6064; and 10 private asylums accommodating 254 insane.

[3] Our effective Inebriate Asylums are: the Washingtonian Home, Boston, Mass., since 1858; the State Inebriate Asylum, Binghamton, N. Y., since 1858; the Inebriates' Home, King's Co., N. Y., since 1867; the Washingtonian Home, Chicago, Ill., since 1864; the Sanitarium, Media, Pa., since 1867; the Harlem Asylum for Inebriates, Baltimore, Md., which was opened in 1871; and the Franklin Reformatory Home for Inebriates, in Philadelphia, Pa., opened in 1872. California enacted the requisite laws in 1870, and Connecticut in 1874. It is believed that Texas and Kentucky have legislated on the subject. For the facts stated I am indebted to Dr. Albert Day, Sup't of the Washingtonian Home, Boston; to Dr. D. H. Dodge, Sup't of the Binghamton Asylum; and to the Annual Reports (since 1871) of the "American Association for the Cure of Inebriates."

[4] In connection with intemperance, it deserves record that only within the present century have Anglo-American Judges inclined to admit drunkenness in extenuation of crime, depriving it of premeditation. (See B. 329. p. 567.)

[5] B. 349, I. p. 759. An eminent lawyer asserts that this still occurs in some of the States, notwithstanding the State Lunatic Asylums.

any judge of the court before which he is to be tried, when a plea of insanity is made in court, or he is notified that it will be made, may . . . order such person into the care of the superintendent of the insane hospital, to be detained and observed by him till the further order of the court, that the truth or falsity of the plea may be ascertained." New York, in 1874, enacted laws which provide for "an investigation of the sanity or insanity of the accused, as a separate and independent proceeding from the trial of the indictment," and, after such preliminary investigation, "leave the question of the guilt or innocence of the accused to be tried by itself."[1] Thus have Maine and New York lessened the frequent difficulty of choosing between "inhumanity to disease, and indulgence to crime."

Five States[2] have aided the solution of this problem by progress in another direction. For, by the abolition of capital punishment, the cruel alternative between the asylum and the gallows has been obviated, and no shocking injustice can be perpetrated by confining in a penitentiary, rather than in an asylum, him proved dangerous to society. It was a great advance in civilization when the victor ceased to slaughter, and by enslaving utilized the lives of the vanquished. Will it not be proof of like progress when society has fully learned how best to utilize the lives of all its criminals?[3]

Notwithstanding that there is still great lack of uniformity in the decisions of our courts as to what are the proper tests of insanity, there has been decided progress. Until Pinel's day (1792), insanity had never been properly studied, hence physicians were little less ignorant and superstitious in regard to it than the public. In the absence of medical knowledge, what could the law do other than establish tests for itself? Until 1800, the savage test of Anglo-American criminal law was that he alone should be adjudged insane, who was "totally deprived of his understanding and memory, and did not know what he was doing any more than an infant, than a brute, or wild beast." In 1800, it was, for the first time, mercifully decided that those whose crimes were due to an "insane delusion," should not be hung, even though not yet wild beasts.[4] In 1812, it was decided that the correct test was whether the criminal alleged insane had, as to matters generally, "the power of distinguishing right from wrong;" and since 1843, in England, and to a large extent in this country, the judges' test has been, whether such criminal had, as to his special crime and at the moment it was committed, "a sufficient degree of reason to know that he was doing an act which was wrong."

But, since 1800, alienists have taught, in constantly increasing number, that a capacity to distinguish right from wrong is an inadequate test,

[1] B. 364.

[2] Michigan in 1846; Rhode Island in 1852; Wisconsin in 1853; Iowa in 1872; and Maine in 1876. Blackstone, referring in 1769 to England's "dreadful list of 160 capital offences," hoped for "such a gradual scale of punishment to be affixed to all gradations of guilt, as may in time supersede the necessity of capital punishment, except for very atrocious crimes." (Book IV. p. 371.) In the various States, other than the above, capital punishment is now inflicted for only from three to eight "very atrocious crimes."

[3] My brief allusions to the "abolition of capital punishment" and to "moral mania," intimate convictions which may cause misapprehension. For *until* our present defects in the administration of justice, in the constitution of our juries, and in the means needed to fully protect society, be remedied, I shall believe that our courts have gone generally as far as, and often much further than, the best interests of society require.

[4] In 1800, Lord Erskine initiated the first enlightened legal discussion of insanity; and the Attorney-General of England then declared that the "wild beast theory" of Lord Hale had never been contradicted, but had always been adopted.

and that, not infrequently, while the reason is apparently able to make this distinction, the will may be so enfeebled, and the morals so perverted by disease, as to deprive the sufferer of that "vicious will" necessary to constitute a crime. The first Anglo-American judges to adopt these lessons of medical science, were Shaw, of Massachusetts, in 1843, and Edmonds, of New York, in 1845. They ruled that insanity was proved if the homicide "had no power of control;" "if his moral or intellectual powers were so deficient that he had not sufficient will;" and "if he did the act from an irresistible and uncontrollable impulse."[1] The learned Edmonds took occasion to observe that "the law in its slow and cautious progress still lags far behind the advance of true knowledge," and the history of the progress of Legal Medicine proves the truth of this observation as to every medico-legal topic. How can this be otherwise while, as another legal authority asserts, our "legislatures are much better versed in the miserable tactics of party, than in the . . . laws of physiology," and while judges, as well as legislators, mindful as they should be of precedent, that friend to uniformity and stability of the law, do, in their superstitious reverence, often forget, not only that "the law of nature, being coeval with mankind and dictated by God himself, is of course superior in obligation to any other,"[2] but also that science is constantly engaged in revising and adding to our knowledge of this supreme law, thus increasing man's power to "think the thoughts of God!"

Improving on Shaw and Edmonds, Judges Bell, Perley, Ladd, and Doe, of the Supreme Court of New Hampshire, have, since 1864, announced the only principles worthy of both legal and medical science,[3] and have thereby merited the profound gratitude of the medical profession, and lasting commemoration in the annals of Anglo-American Medical Jurisprudence. None announced the true principles of the law more clearly than Judge Doe, who (in 1869) charged that "at present, precedents require the jury to be instructed by experts in new medical theories, and by judges in old medical theories;" and that, in this, "the legal profession were invading the province of medicine, and attempting to install old exploded medical theories in the place of facts established in the progress of scientific knowledge." But, he adds, "that cannot be a fact in law which is not a fact in science; that cannot be health in law which is disease in fact; and it is unfortunate that courts should maintain a contest with science and the laws of nature upon a question of fact, which is within the province of science, and outside the domain of the law." "The legal principle, however much it may formerly have been obscured by pathological darkness and confusion, is, that a product of mental disease is not a contract, a will, or a crime. It is often difficult to ascertain whether an individual has a mental disease, and whether an act was the product of that disease, but these difficulties arise from the nature of the facts to be investigated, and not from the law; they are practical difficulties to be solved by the jury, and not legal difficulties

[1] In the record of progress in the legal tests of insanity, it deserves notice that Drs. Gooch and Combe, about 1830 (B. 226), "first announced the great principle that the mind of one supposed insane should be compared with his own mind when in its natural, habitual state," and not with some ideal average mind of health. This principle has been extended by the laws of New York to homicide in self-defence, etc., modifying the interpretation of "apparency of danger," "cooling time," "intent," and "premeditation." (See Homicide; by F. Wharton, 2d Ed., 1875.)

[2] Blackstone, I. p. 41.

[3] State *v.* Wier, State *v.* Pike, State *v.* Jones, Boardman *v.* Woodman, 1864, 1869, 1870.

for the court." "If the tests of insanity are matters of law, the practice of allowing experts to testify what they are, should be discontinued; if they are matters of fact, the judge should no longer testify without being sworn as a witness, and showing himself qualified to testify as an expert." In fine, all symptoms and all tests of mental disease are purely matters of fact to be determined by the jury from the evidence of competent witnesses; and since "legal precedent was one way, legal principle the other," precedent should be abandoned, and principle be followed.

Side by side with the enlightened views of these American judges, will be recorded, for the instruction of astonished posterity, that as late as 1862 the Lord Chancellor of England did, in referring to insanity, declare in the House of Lords that "the introduction of medical opinions and medical theories into this subject has proceeded upon the vicious principle of considering insanity as a disease," and that he condemned "the evil habit which had grown up of assuming that it was a physical disease"![1] Can this fail to revive the recollection that ninety-three years anterior to this Lord Chancellor, Blackstone, an abler lawyer than he, thus fulminated (1769): "to deny the possibility, nay, actual existence of witchcraft and sorcery is at once to flatly contradict the revealed word of God," . . . "and the thing itself is a truth to which every nation in the world hath in its turn borne testimony"?[2] This Lord Chancellor affords, however, a psychological lesson much needed even now; for his opinions illustrate what profound furrows the ancestral bigotry and superstition of centuries can plough into even the best endowed brains of the descendants—as we all are—of uneducated barbarians.[3]

One more hopeful example must close my record of our progress. In 1867, Medicine and Law, uniting for the first time in history for such a purpose, founded "The Medico-Legal Society of New York;" now numbering among its members more than four hundred physicians and lawyers of influence and distinction, its brief life has been adorned with good deeds. It has established a medico-legal library, which promises to become, if it is not already, the best in existence; it is about to issue a second volume of valuable essays, the first having been published in 1874; it has, by critical vigilance, elevated the standard of medical experts, and in one noted conviction its criticisms instigated a second trial with acquittal; wisely imitating its junior, "La Société de Médecine Légale de France,"[4] in its efforts to furnish a substitute for the negligence of the State, it has (May, 1876) appointed three medical and three legal experts as a permanent commission to investigate any medico-legal issue referred to it; it has called attention to the condition and criminal responsibility of uneducated mutes, and to the laws necessary for their protection; and it has influenced the legislation of New York as to abortion, as to robbery under the influence of chloroform, and as to the trial and punishment of all homicides, whether sane or insane. Thus instructing the public, and inaugurating reforms, it seems destined

[1] Hansard, CLXV. 1297. [2] Blackstone, IV. p. 60.

[3] It deserves record, in connection with the progress of judicial decisions, that, at the present day, Anglo-American law does not regard the killing of an infant prior to its complete expulsion from the vagina (*i. e.* to its being "fully born alive") as infanticide. An English Judge recently charged a jury that, "if of opinion that the prisoner had strangled her child before wholly born, she must be acquitted of murder." (See B. 292, I. p. 542; and B. 358, II. pp. 359-61.) Ellwell (B. 290, p. 555) says, "Infanticide may be committed upon an unborn live child."

[4] Organized February, 1868, and formally recognized by a decree of the French government, January, 1874.

to render New York the pioneer of all the States in medico-legal progress; and finally, in promoting scientific intercourse and discussion between the two professions, it has forcibly taught that the invidious bigotry of the one is as misplaced as that of the other, and that the common weal loudly demands the united efforts of the best minds of both.[1]

What labor so god-like as the dispensation of justice; what efforts in its behalf can be more important than those designed to enable the law to reap promptly the full benefits of science—of that knowledge which, having done so much for human development, now proffers unappreciated boons, and by incessant progress assures mankind a higher destiny? Shall medicine and law, standing aloof, not only endure but even blindly honor ancestral evils? Is it needful in 1876 to remind two learned professions that the author of our imperishable Declaration of 1776 declared: "The Gothic idea that we are to look backwards instead of forwards for the improvement of the human mind, and to recur to the annals of our ancestors for what is most perfect in government, in religion, and learning, is worthy of those bigots in religion and government by whom it has been recommended, and whose purposes it would answer. But it is not an idea which this country will endure"?

This historical sketch requires for its completion a record of the measures proposed to correct our medico-legal evils, which, often denounced since 1823 by the medical profession, continue unappreciated by the people. To test the value of these proposed measures it is indispensable to understand the following premises, accepted by the highest medical and legal authorities.

While one would suffice to maim, our law adopts two methods to murder, Medical Jurisprudence; both so result that it is a vulgar mockery of medical knowledge and of justice to term such medical evidence as is attained, "the best attainable." In one case, the law neglects to secure competent experts to testify, as "ordinary witnesses," to facts obtained by them from inquests and all medico-legal examinations. In the other case, the law fails to provide such experts to testify, as "skilled witnesses," not to facts they have personally witnessed in the case, but to their "opinions," as to what conclusions are deducible from the medical facts sworn to by ordinary witnesses; for this marked difference between the *ordinary* and the *skilled* witness, Anglo-American law deplorably fails to make any provision, while German and French law wisely recognize that the skilled witness is not an ordinary witness, but an *arbitrator*. Further, it is manifest that the experts thus needed, for two distinct purposes, can never be supplied except by the State; that the competency of these experts can never be secured except by special and practical instruction; that the chief instruction must be given by medical men; and that the instructors alone are competent to attest the competency of their pupils.

These premises cannot be refuted, and force the general conclusions that no measures could fully correct our evils except such as, in the first place, would reform altogether the office of coroner, and supply competent experts for its duties, and, in the second place, would provide a legal status for skilled witnesses, and secure their skill; and that these two indispensable ends can never be gained except through *an organized system of medico-legal officials, specially trained as medical experts, and*

[1] B. 356, 363, 364, 380, 387.

attested as competent by competent judges. Alas! these irrefutable conclusions are most discouraging, for no American can fail to appreciate how difficult and distant is their realization. But when the remedies are not forthwith at hand to cure a disease, should we cease its study, and our efforts both to discover and to obtain all the remedies necessary? A full understanding of the indispensable remedies, will at least enable us to test the value of the seven which have been proposed. Their introduction requires two comments: first, there is no one of them which would not prove decidedly beneficial, since, fortunately in this regard, there is no change of our law which could possibly aggravate our present evils; and second, the first four to be mentioned apply to only one of our two great evils.

One proposal is that special juries be provided for special cases,[1] and another is that a medical assessor be appointed to advise and assist the courts;[2] either would provide better judges of medical testimony, but neither makes any attempt to supply "the best attainable evidence." A third measure proposes a commission of experts chosen either by mutual consent,[3] or one by each party and a third by the judge.[4] This great improvement could probably be adopted more readily than any other measure suggested; but none of those thus authorized to appoint have the knowledge necessary to enable them to select competent experts, and therefore this measure would certainly not secure "the best attainable evidence." A fourth proposal is the adoption of the French law which empowers the judge to appoint a medical commission.[5] French authorities, while urging the adoption of the German system, denounce their own with even contemptuous bitterness,[6] asserting that their judges rarely appoint competent experts, but generally their own family-physicians and practitioners of merely popular repute.[7] A fifth proposal, which would require all graduates in medicine to be competent experts, as well as practitioners,[8] has long been, and is daily becoming so much more impracticable, as to deserve no notice except as illustrating how inadequately is estimated the extent and character of the special knowledge necessary to a medico-legist.

Prof. Gross[9] urged, in 1868, that the Judges of the Supreme Court of each State should appoint a commissioner in every judicial district, to elicit and estimate medical evidence; and that he should be provided with two or more medical experts as assistants, to make all medico-legal examinations. This is the only measure, thus far considered, which aims a practical blow at both our evils. But, if French experience be applicable to us, then judges of law are not good judges of experts, and should not be authorized to appoint them, except from those whose competency has been attested by competent judges of experts; and, if German experience be applicable to us, then a medical commissioner, long ago tried

[1] J. Fitz Stephen's "Criminal Law of England, London, 1863;" and Dr. I. Ray (B. 234).
[2] A. S. Taylor and many others.
[3] Beck (B. 209) and others.
[4] Ordronaux (B. 318), etc.
[5] Urged by many.
[6] See Foderé, Orfila, Devergie (B. 114, 121, 124); and especially the Preface to Vol. I. 4th ed. of Orfila. Some at least of the French courts have made the improvement of appointing a permanent commission of experts for all medico-legal cases, instead of a special commission for each case.
[7] If the French system be satisfactory, if the State provide, as it should, "the best attainable evidence," then why should there be in Paris, as in New York City, an unofficial and gratuitous commission of volunteer experts?
[8] Chitty (B. 231), and very many others.
[9] President's Address, Trans. Am. Med. Assoc., 1868.

and abandoned in Germany,[1] is superfluous, provided the law supplies a proper system and competent experts to present to the courts "the best attainable evidence."

Finally, others advocate some such modification, as may be practicable under our form of government, of that German system which, the growth of two centuries of experience, alone gives satisfaction at home, and at the same time commands the admiration of the medico-legists of every civilized nation.[2] The Prussian system has four grades of medico-legal officials. (1) To a specially educated official expert is submitted every medico-legal case.[3] His examinations, made in presence of the judge (in some cases), and of medical men and students, insure by their publicity thoroughness and impartiality, and are the foundation of Germany's medico-legal clinics which provide the practical instruction indispensable to the education of competent experts. All the facts and proofs derived from the examination, and essential to a conclusion, are made parts of a written report, and these reports, with subsequent action thereon, are preserved in official archives, and have been the source of Germany's fruitful medico-legal literature. (2) If prosecution or defence be dissatisfied, the expert's report, with all proofs preserved, is forwarded to a Medical Court of Appeal, which, consisting of from four to six members, exists in each province. (3) If this second decision prove unsatisfactory, there is a final appeal to a Scientific Deputation, composed of experts of national reputation.[3] (4) Finally, one of the highest officers of the government, the Minister of Medical Affairs, presides over an educational and a sanitary, as well as over this medico-legal organization, and in fact rules a department of State Medicine.

Has State Medicine become necessary to a nation's progress in civilization? Can services essential to the welfare of a people be rendered by other than medical officers? Who will deny that no well-governed State can dispense with medical instructors; with physicians in charge of its hospitals and asylums; with medico-legal experts; with inspectors to watch over the execution of proper laws for prohibiting quackery and the sale of quack, fœticidal, poisonous, and adulterated drugs and food, and also to certify to every death with its cause, after personal examination;[5] with registrars of vital statistics to record not only marriages,

[1] See Preface to the French edition of Casper (B. 88).

[2] Sheldon Amos, Esq., Prof. of Jurisprudence, University College, London (see "Science of the Law," New York, 1874), in discussing the expert problem, says: "Almost all the solutions point to the public organization of bodies of skilled witnesses in each of the important departments in which they are constantly demanded, and to a special preference being given to their evidence in the administration of justice." Francis Wharton, Esq., (B. 264, II. p. 1120) urges that the German system is the only one worth imitating. In these views I thoroughly concur, notwithstanding the serious objections urged by such high authorities as J. Fitz Stephen, Esq., and I. Ray, M.D.

[3] There are circumstances, says Casper, where any doctor may be called on, as an expert, in Prussia.

[4] Formerly in Prussia (probably still in parts of Germany) the collegiate medical faculties were appealed to, whenever the primary reports of the official experts were not satisfactory to both litigants.

[5] The English system of determining and certifying to death and its cause is certainly not inferior to any such system (or lack of system) existing in the United States; and yet so inefficient is this superior system that Prof. A. S. Taylor reports that a man registered his own death, and then based a fraudulent claim on the certificate of his death and on the fact of his burial, which he himself had supervised; and he further asserts that "all that is requisite for future murderers by poison to do, is to use small doses, combine the use of various drugs, and subpœna the proper medical witnesses for the defence." (See B. 358, I. pp. 167–8 and 196.)

births, and deaths, but also prevailing diseases with their causes; and, finally, with sanitary officers to guard the public health by vaccination, quarantine, seclusion, disinfection, and all known means?

While such services to the State would now confer incalculable benefits, these are not a tithe of those which the progress of medical science assures the future. But a patchwork of ill-digested laws cannot secure these benefits, nor mere practitioners of medicine render these services. To this end a well-organized system of State Medicine, administered by specially educated medical men, is indispensable; and however discouraging the difficulties, educational, legal, and political, in our path, these must be eventually overcome, or our country prove a laggard in the triumphant march which civilization, led by the hand of science, is now treading. One of these difficulties, an increase of officials, dangerous to a republic, repugnant to the people, is more serious in appearance than in reality; for our present posts for coroners, and for sanitary and other medical officers, would suffice for, at least, the initiation of an organized system of State Medicine. Far more serious difficulties are presented by those causes which now so often fill these posts with unqualified men, by the continual elections and "rotations in office," through which the people, with suicidal folly, eliminate from public service responsible and efficient servants. If the demoralizing political principle, "to the victors belong the spoils," is to continue its mastery over the virtue and intelligence of a great people, then all hope of efficiency in any system of State Medicine, as well as in every public service which requires special skill and experience, must be abandoned. But, if the cardinal maxim of our political faith be well founded, if it be true that a republican government is better adapted than any other to secure the greatest good to the greatest number, then, though public enlightenment develop slowly, the day must come at last when all impediments will be overthrown, and an efficient system of State Medicine be organized by our laws. This progress, as all others, must pass through stages of evolution, and expediency force the acceptance, as now, of mere make-shifts; but this conviction should not deter the attempt to measure the full extent of our defects and of our needs, nor prevent us, while conscious that we are but scratching the surface of great evils, from striving to direct our efforts to their very root.

Honored Members of this International Medical Congress: Laboring on the task now completed, professional instinct prompted as sedulous a search for the symptoms of disease which skill might alleviate, as for the evidences of health which need no aid; for the instruction of my successor of 1976 (the one man who, should there be no other, will study this Address), I have deemed it as needful to record that which has been left undone, as that which has been done; and, while mindful of gratitude's debt to the honored living and illustrious dead, I have endeavored to keep in mind that the chief object of history is to teach wherein and why we have failed, that we may do better in future.

Actuated by these motives, I have thought no time more appropriate to note our failures than this Centennial Year, which gathers from far beyond our own vast domain, conclusive evidences of the might and fame of this nation. To its colossal power, how harmless is the voice of malice; to its dignity, how offensive should be the voice of flattery; to its honor, how unwelcome aught save the voice of truth! What higher evidence of true greatness, what better pledge of continued prosperity,

can this people give, than by proofs that now, in the day of its supreme vigor and renown, it is intent upon its own shortcomings; and that, beneath a flimsy veil of national vanity, there sturdily stands "the pith o' sense, and pride o' worth"! If I have dwelt unduly on my country's faults, it has not been from lack either of devotion to its form of government, or of just pride in its many noble deeds in humanity's behalf; but that I would have our Republic foremost in every good work, its progress endless, and its glory deathless.

BIBLIOGRAPHICAL APPENDIX.

Explanations and Abbreviations.

To economize space, the titles and places of publication of the general treatises in foreign languages have been omitted, except in a few instances of those of great note. For the same purpose, each author has been numbered, and is referred to by number in the notes to the Address, and in the final indices to this bibliographical appendix. Dates separated by a hyphen, *e. g.* 1621–58, indicate that the publication of the book in different parts was begun in 1621, and completed in 1658; dates separated by a comma, *e. g.* 1598, 1602, 1671, indicate the dates of the publication of different editions; and dates repeated, or closely approximating, indicate the publication of different editions in different places.

This contribution to the bibliography of American Medical Jurisprudence is preceded by a bibliographical record of the medico-legal literature of Italy, Germany, France, and Great Britain; and the whole has been arranged chronologically to illustrate the origin and progress of medico-legal science.

Wildberg's "Bibliotheca Medicinæ Forensis, 1819," records 2980 treatises, essays, etc., published from the origin of medico-legal literature (about A. D. 1600) to 1818. Orfila's Médecine Légale, 4th ed., furnishes a list of 168 treatises (to 1848), on poisons generally; of these 100 were German, 33 French, and 19 English. An English authority, the New Sydenham Society's "Year Books" for 1859 and 1860, reports the chief literary contributions of all nations to Medical Jurisprudence and Toxicology during the two years 1858 and 1859; the total number was 498, viz., 250 for Legal Medicine and 248 for Toxicology: and of the former, Germany contributed 201, and of the latter, 118. These, with other facts, indicate that Germany continues to contribute more to medico-legal literature than all other nations combined; and that a complete bibliography of the Medical Jurisprudence of all languages must report many thousands of books, essays, and articles. Hence the bibliographical sketch of foreign literature attempts no more than the record of treatises and manuals on the general subject; preceding these with a list of the books on special subjects which were published prior to the first general treatise; and following these with a reference to a few authorities of great repute on special subjects. It deserves note that in every language the number of publications on special subjects, after the issue of the first general treatise, has been very great, and proportionate to the number of general treatises.

The contribution to the bibliography of American Medical Jurisprudence attempts to report all the treatises, books, essays, and pamphlets, by native and foreign authors, published in the United States; the republication of foreign works being indicated by a †. Only a few articles from Journals are cited, and these for a special purpose. The bibliography of Medical Jurisprudence, as represented by "articles in journals, transactions, and collections," giving "the results of the examination of about 5000 volumes of such publications," will constitute a part of the "Catalogue of the National Medical Library," now in course of preparation by Dr. John S. Billings, Asst. Surgeon U. S. A., and Librarian; and will probably be published in 1877. Further, the New

York Medico-Legal Society is preparing for publication an extensive bibliography of Medical Jurisprudence. These two sources will no doubt supply all defects and omissions in this contribution.

For articles and reports of merit, the reader is referred especially to the American Jurist and Law Magazine, Boston, 1829 to 1843; American Journal of Insanity, Utica, N. Y., since 1844; Reports of the Association of Medical Superintendents of Hospitals for the Insane in North America, since 1844; Transactions of the Medical Society of the State of New York, prior to 1845; Transactions of the American Medical Association, since 1848; Albany Law Journal, since 1870; Annual Reports of the American Association for the Cure of Inebriates, since 1871; the Psychological and Medico-Legal Journal, N. Y., and the Series of Papers by the N. Y. Medico-Legal Society, both since 1874.

Italy.

General Treatises.—1. Fidelis, Fortunatus, De Relationibus Medicorum, 1598, 1602, 1671. 2. Zacchias, Paulus, Questiones Medico-legales, &c., Books I. to X., 1621–58, 1651, 1655–61, 1657, 1666, 1688, 1674–1701; Nuremberg, 3 vs. 1720; Venise, 1737. 3. Tortosa, "best book to its date," 2 vs. 1802, 1809. 4. Sidoti, 1806. 5. Barzelotti, "very excellent," 2 vs. 1818, 1823–4, 1839. 6. Martini, 3 vs. 1825. 7. Taurini, 4 vs. 1832, 1841–4. 8. Speranza, 1833. 9. Grotanelli, 1834. 10. Clédillot, 1836. 11. Riscica, 1836. 12. Gianelli, 1836. 13. Perrone, 2d ed. 1840. 14. Presutti, 1841–4. 15. Treschi, 3 vs. 1846. 16. Lazzaretti, 1859. 17. Gandolfi, 1854, 1863.

Special Treatises.—18. Morgagni, De Sedibus et Causis Morborum, 1761. 19. Beccaria, Scriptura Medico-Legalis, 1764; and "Crimes and Punishments;" republished in Italian, 1821; French, 1821; English, 5th ed. 1804; Philadelphia, 1778 and 1793.

Germany.

Earliest Treatises on Special Subjects.—20. Condronchus, Methodus Testificandi, 1597. 21. Libavius, De Cruentatione Cadaverum, 1599. 22. Ammann, Irenicum, &c., 1619, and Medicina Critica, 1677. 23. Behrens, Medicus Legalis, 1696. 24. Wolf, Cogitat. Med.-Leg. 1697. 25. Valentini, Pandectæ Med.-Leg. 1701, and Novellæ Med.-Leg. 1718. 26. Fischer, Consilia Medic., &c., 1703–6, and Responsa Pract. et Forens. Select. 1719. 27. Bohn, De Officio Medici, 1704, and De Renunciatione Vulnerum, 1689, 1710 (both of note). 28. Zittman, Medicina Forensis, 1706.

General Treatises.—29. Valentini, Corpus Juris. Med.-Leg. ("best book to its date"), 2 vs. 1722. 30. Teichmeyer, Institutiones Med.-Leg., &c. ("long the Manual of Students"), 1722, 1731, 1740, 1762, 1769. 31. Albertus, Systema Jurisp. Medicæ, &c. ("very excellent"), 1725, 1733–47, 1756. 32. Goelicke, 1723. 33. Loew, 1725. 34. Storck, 1730. 35. Tropanneger, 1733. 36. Eschenbach, 1746, 1775. 37. Hebenstreit, Anthropologia Forensis, &c. ("much valued by lawyers"), 1751. 38. Furstenau, 1752. 39. Boerner, 1756. 40. Bernhold, 1760. 41. Ludwig, 1765, 1774. 42. Faselius, Elementa Medicinæ Forensis, 1767, 1775 ("*foundation*" of Farr's Elements of Med. Jurisp., 1788, the first treatise in the English language). 43. Braendel, 1768, 1789. 44. Kannegiesser, 1768, 1772, 1777, 1778. 45. Baumer, 1778. 46. Sikora, 1780, 1792. 47. Plenck, Elementa Med. et Chir. Forensis, 1781, 1786, 1802 (foundation of Male's Epitome of Forensic Medicine, London, 1816). 48. Haller, 1782–4. 49. Schlegel, Collect. Opusc. Select. ad Med. For. Spect., 6 vs. 1785–90 ("best book to its date"). 49. Loder, 1793. 50. Metzger, System. der gerichtl. Arzney. ("best book to its date"), 1793, 1794, 1798, 1803, 1814, 1820, and two French editions: Autun, 1812; Paris, 1813. 51. John, 1795. 52. Fahner,

3 vs. 1795–1800 53. Müller, 4 vs. 1796–1802. 54. Erhard, 1800. 55. Schrand, 1802. 56. Schmidtmuller, 1804. 57. Masius, 1810, 1812, 1821–3. 58. Bene, 1811. 59. Wildberg, 1812, 1824. 60. Henke, Lehrb. der gerichtl. Med., 1812, and Bergmann's 13th ed., 1859. 61. Niemann, 2 vs. 1813 62. Bernt, 1813, and 5th ed. 1846. 63. Dorn, 1813. 64. Klose, 1814. 65. Sprengel, 1816. 66. Mende, Handb. der gerichtl. Med. ("a remarkable book"), 6 vs. 1819–32. 67. Meckel, 1821. 68. Platner, 1824. 69. Niemann, 3 vs. 1827–9. 70. Wagner, 1833–40. 71. Sporer, 1837. 72. Siebenhaar, 2 vs. 1838. 73. Freidreich, 2 vs. 1839, 1843, 1848, 1855. 74. Rolff, 1840. 75. Nicolai, 1841. 76. Ney, 1845. 77. Bergmann, 1846. 78. Brach, 1846, 1850. 79. Siebold, 1847. 80. Meckel, 1848–53. 81. Schürmayer, Lehrbuch der gerichtl. Med., 1848, 4th ed., 1874. 82. Quentner, 1851. 83. Güntner, 1851. 84. Krahmer, Handb. der gerichtl. Med., 1851, 1857; and 85. Handb. der Staatsarzneik., 1874. 86. Böcker, 2d ed., 1857. 87. Hauska, 1857–69. 88. Casper, Handb. der gerichtl. Med., 1857, 1858; 3d was the first complete ed., 1860, 1864; Liman's 5th ed., 1871; French ed., 2 vs. 1862; English ed., 4 vs. 1861–5; and translated into several other languages. 89. Hofman, 1860. 90. Pichler, 1861, 1867. 91. Lion, 1861, 1867. 92. Schauenstein, 1867. 93. Büchner, 1867; 2d ed., 1872. 94. Kraus und Pichler, Encyc. Wörterbuch d. Staatsarzneik., 2 vs. 1873.

N. B.—Five of the above sixty-five German general treatises have been published since 1870, viz.: Casper (Liman's 5th ed.), 1871; Büchner, 2d ed., 1872; Krans & Pichler, 1873; Krahmer, 1874; Schürmayer, 4th ed., 1874.

Special Treatises.—Among the most distinguished German authors on special subjects have been: 95. Roose, Grund. Med.-gericht Vorles., 1798, 1800, 1802; translated into French by Marc, Manuel d'Autops. Cadav. Méd.-Lég., Paris, 8vo. 1808. 96. Hoffbauer, 1802, 1807, 1809; translated into French, Méd. Lég. relative aux Aliénés, &c., Paris, 1827. 97. Heinroth, 1812, 1825. 98. Mittermaier, 1856, 1858, 1865. 99. Krafft-Ebing, 1868, 1872, 1875. All of these in reference to the Medical Jurisprudence of Insanity or Medico-Legal Psychology.

France.

Earliest Treatises on Special Subjects.—100. Paré, Ambroise, Medical Reports, Monstrous Births, Feigned Diseases, 1575, 1582, and Œuvres Complètes, Paris, 3 vs. 1840. 101. Pineau, Integ. et Corrup. Virgin., 1598. 102. Riolan, Les Monstres, 1605. 103. Tagereau, L'Impuissance, 1611. 104. Duval, L'Hermaphrodisme, 1612. 105. Sebitz, La Virginité et L'Hymen, 1630, 1638. 106. Gendri, Moyens de bien rapporter à justice, 1650. 107. Blegni, La Doct. des Rapports de Chirurgie, 1684. 108. Devaux, L'Art de faire des Rapports en Chirurgie, 1693, 1701, 1730, 1746. 109. Bruhier, L'Incertitude des Signes de la Mort, &c. (180 cases of living, treated as if dead), 1742. 110. Verdier, La Jurisp. de la Méd., &c., 1752. 111. Prévost, Principes de Jurisp., &c, Méd.-Lég., 1763. 112. Louis, A. Signes de la Mort, &c.; Exps. sur les Noyés; Recueil d'Observations, &c.; Causes Celèbres (first 43 vols.), 1752–88. 113. Chaussier, Obs. Chirur.-Légales. &c., 1790, 1824, 1838.

N. B.—The most noted of these were Paré, Gendri, Blegni, Devaux, Louis, and Chaussier.

General Treatises.—114. Foderé, Traité de Méd. Lég. et d'Hyg. Pub., 3 vs. 1796; 2d ed., 6 vs. 1813. 115. Mahon, 1801, 1807, 1811. 116. Belloc, 1801, 1811, 1819. 117. Vigné, 1805. 118. Bertrand, 1817. 119. Lecieux, &c., 1805. 120. Biessy, 1821. 121. Orfila, Leçons de Médecine Légale, 3 vs. 1821–5, 1828, 1839; 4th ed., 1848. 122. Briand, Manuel de Médecine Légale, 1821, 1828; Briand et Bresson, 3d ed., 1830; Briand et Chaudé, 1846, 1852, 1858, 1864, 1869; Paris, 9th ed., pp. 1102, 8vo. fort., 1874. 123. Sédillot, 1830, 1833. 124. Trinquier, 1836–8. 124*a*. Devergie, Médecine Légale, 3 vs. 1837, 1840, 1852. 125. Bayard, 1844. 126. Legrand du Saulle, Ortolan, et Naquez, 1870.

127. Legrand du Saulle, Traité de Médecine Légale et de Jurisp. Méd., Paris, pp. 1268, 1874. 128. Bergeron, 1876.

Special Treatises.—Among the most distinguished French authors on special subjects may be mentioned: 129. Pinel, Ph., 1800, 1805, 1809. 130. Georget, 1820, 1826, 1828. 131. Esquirol, 1832, 1838. 132. Marc, 1840. 133. Brierre de Boismont, 1827–1860. (All on Medico-Legal Psychology.) 134. Capuron, Obstetrical Medical Jurisprudence, 1821. 135. Trebuchet, Jurisp. de la Médecine, &c., 1834. 136. Poilroux, Manuel de Méd.-Lég. Criminelle, 1834, 1837. 137. Tardieu, A., numerous experimental and literary contributions, entitling him to the first rank among the medico-legists of the present time, 1845 to 1876.

Great Britain, etc.

Earliest Treatises on Special Subjects.—138. Percival, Thos., Essays Med. and Exp., &c., 1778–90. 139. Wm. Hunter, Uncertainty of Signs of Murder in Bastard Children, 1783. 140. Goodwyn, Submersion, Strangulation, &c., 1788. 141. Crichton, Mental Derangements, 1798. 142. Haslam, Insanity, and Medical Jurisp. of Insanity, 1798, 1809, 1817, 1819. 143. Johnstone, Madness, Med. Jurisp. of, 1800. 144. Perfect, Insanity, 2d ed., 1801. 145. Collinson, Lunacy, Law of Idiots, Lunatics, &c., 1812. 146. Johnson, C., Signs of Murder in New-Born Children (from the French of Mahon), 1813. 147. Hill, Insanity, 1814. 148. Hutchinson, Infanticide, 1820. 149. Burrows, Insanity, 1820, 1828.

General Treatises.—150. Farr, Saml., Elements of Medical Jurisprudence (founded on the German of Faselius, 1767, see 42), London, 12mo. 1788; 2d ed., pp. 139, 12mo. 1814. 151. Bartley, Treatise on Forensic Med. (said to be very insignificant), Bristol, 12mo. 1815. 152. Male, Epitome of Forensic Medicine (largely from the German of Plenck, see 47), London, 12mo. 1816; 2d ed., 1818. 153. Smith, John Gordon, Principles of Forensic Medicine (the first book in the English language of any original merit), London, pp 503, 8vo. 1821; 2d ed., 1824; 3d ed., 1827. 154. Paris and Fonblanque, Medical Jurisprudence (best book to its date), London, 3 vs. 1823. 155. Forsyth, Synopsis of Modern Medical Jurisprudence (denounced by Beck as a wholesale plagiarism), London, pp. 600, 1829. 156. Ryan, Manual of Med. Jurisp., London, pp. 309, 8vo. 1831; 2d ed., 1836. 157. Chitty, Med. Jurisp. (never completed), London, Part I. 8vo. 1834. 158. Traill, Outlines of Med. Jurisp., Edinb. 12mo. 1836; 2d ed., 1840. 159. Brady, Med. Jurisp., Dublin, 1839. 160. Taylor, A. S., Elements of Med. Jurisp., Vol. I., pp. 511, 8vo., London, 1836 (a second volume never published). Manual of Med. Jurisp., 1st ed., 1844; 8th ed., 1866; 9th ed., London, pp. 772, 8vo. 1874. N. B.—Seven American and one German ed., 1858. 161. Guy, W. A., Principles of Forensic Medicine, London, 1843; 2d ed., pp. 534, 1861; 3d ed., 1868. 162. Taylor, A. S., Principles and Practice of Medical Jurisprudence, London, 1865; 2d ed., 2 vols. pp. 723, 672, 8vo. 1873. 163. Husband, Forensic Medicine and Med. Police, Edinb. 1873. 164. Woodman and Tidy, Handy-book of For. Med. and Toxicology, London, 1875.

Special Treatises.—Among the most distinguished British authors on special subjects, and whose books have not been republished in America (see 201 to 390), may be mentioned—165. Conolly, 1830. 166. Pagan, 1839, 1843—both on the Med. Jurisp. of Insanity. 167. Watson, Alex., Homicide, 1837; 2d ed., 1842. 168. Gavin, H., Feigned and Factitious Diseases, 1843.

CONTRIBUTION TO THE BIBLIOGRAPHY OF AMERICAN MEDICAL JURISPRUDENCE.

Republications of foreign works are indicated by a †, and pamphlets by a *; the latter are for the most part reprints from Journals, etc. Some works not strictly medico-legal are given, because often referred to by medico-legists.

201. †Cox, J. M. Observations on Insanity, Med. Jurisp. of, from the 2d London ed. Phila., 1811.
202. Rush, Benj. Introductory Lectures (16th). 8vo. Phila., 1811.
203. Rush, Benj. Diseases of the Mind. 8vo. pp. 367. Phila., 1812. 2d and 3d ed.? 4th ed. 1830, 5th ed. 1835.
204. *Ducachet. Dissertation on Action of Poisons. New York, 1817.
205. *Beck, John B. Infanticide. 8vo. pp. 95. New York, 1817. (*Republished with additions, etc., in the various editions of "Beck's Med. Jurisp.*")
206. †Orfila. Poisons, by R. H. Black. 12mo. pp. 240. Baltimore, 1819.
207. †Cooper, Thos. Tracts on Med. Jurisp., viz., of Farr, Dease, Male, and Haslam (British). 8vo. pp. 456. Phila., 1819.
208. †Highmore. Law of Idiocy and Lunacy. 8vo. Exeter, N. H., 1822. (1*st Am. from last English ed.*)
209. Beck, T. R. Elements of Medical Jurisprudence, with the Chapters on Infanticide and Abortion, by J. B. Beck. (*First American General Treatise.*) 2 vols., 8vo. pp. 418, 471. Albany, N. Y., 1823.
    2d ed. with notes by Dr. W. Dunlop. London, 1825.
    3d and 4th eds. dates unknown. One at least was a London ed. with notes by Dunlop and Darwell.
    German edition (translated). Weimar, 1828.
    5th ed. (2d American ed.) by T. R. and J. B. Beck. 2 vols., pp. 661, 694. Albany, 1835. 5th ed. London, 1836.
    6th ed. (3d American) pp. 670, 743. Phila., 1838.
    7th ed., with notes by Dunlop and Darwell. pp. 1138. London, 1842.
    8th and 9th editions, dates and places of publication unknown.
    10th ed. 2 vols. Albany, 1850–51.
    11th ed., revised by Dr. C. R. Gilman, with Drs. D. T. Brown, R. H. Coolidge, A. Flint, Sr., B. W. McCready, S. St. John, Jno. Watson, and J. P. White, as Collaborators. 8vo. 2 vols., pp. 884, 1003. Phila., 1860.
    12th ed. Same Editor and Collaborators. 8vo. 2 vols., pp. 894, 995. Phila., 1863.
210. *Webster, J. Essay on Med. Jurisp. 8vo. pp. 52. Phila., 1824.
211. †Morgagni. Seats and Causes of Disease. (*Cooke's English Translation.*) 8vo. 2 vols. Boston and Phila., 1824.
212. †Orfila. Poisons (translated by J. G. Stevenson). 12mo. Boston, 1826.
213. Warren, J. C. Dislocations of Hip-Joint (Malpractice). 8vo. pp. 142. Cambridge, Mass., 1826.
214. *Dunglison, R. Syllabus of Lectures on Med. Jurisp. 8vo. pp. 142. Univ. Va., 1827.
215. Horner, W. E. Healthy and Diseased Appearances of the Mucous Membranes of the Stomach and Intestines. [With experiments.] Am. Journ. Med. Sci., pp. 1–40, Nov. 1827.
216. *Simons, T. Y. Mental Alienation, Med. Jurisp. of. 8vo. Charleston, S. C., 1828.
217. Horner, W. E. Pathological Anatomy. 8vo. pp. 460. Phila., 1829.
218. Lobstein, J. F D. Semeiology of Countenance, etc., in Med. Jurisp. 8vo. pp. 150. N. Y., 1830.
219. *Hance, W. Appeal to Citizens of Ohio. . . . Medical Law, etc. 8vo. pp. 20. Columbus, O., 1830.

220. Rush, B. Diseases of the Mind. (See 203.) 4th ed. 1830.
221. Dubois, W. E. Trial of Lucretia Chapman (Poison). 8vo. pp. 213. Phila., 1832.
222. Coley, H. (of London). Treatise on Med. Jurisp. Part I. Poisons and Asphyxia. (*Never completed.*) 8vo. pp. 72. N. Y., 1832.
223. †Ryan. Manual of Med. Jurisp., with notes, etc., by Dr. R. E. Griffith. 1st Am. ed. 8vo. pp. 327. Phila., 1832.
224. Ducatel. Toxicology (*from Christison, and for practitioners rather than for medico-legists*). 12mo. Balt., 1833.
225. Gross, S. D. Experiments on Strangling. Western Journ. Med. and Surg. Vol. 9, 1833.
226. †Combe, And. Mental Derangements (1st Am. ed). 8vo. pp. 336. Boston, 1834.
227. Beck, J. B. Researches in Medicine and Med. Jurisp. 8vo., 2d ed., pp. 258. N. Y., 1835.
228. Williams, S. W. Catechism of Med. Jurisp. (Very severely criticized.) 18mo. pp. 205. Northampton, Mass., 1835.
229. Beck, T. R. and J. B. Med. Jurisp. (See 209.) 5th ed., 1835.
230. Rush, B. Diseases of the Mind. (See 203.) 5th ed. 1835.
231. †Chitty. Med. Jurisp. Part I. Am. ed. 8vo. pp. 509. (*Never completed.*) Phila., 1836.
232. †Prichard, J. C. Insanity. Am. ed. 8vo. pp. 111. Phila., 1837.
233. †Taylor, A. S. Observations and Experiments on Lungs of New-Born Children. Phila., 1838.
234. Ray, Isaac. Medical Jurisprudence of Insanity. ("Best book in English language to date," reprinted in England and Scotland.) 8vo. Boston, 1838.
2d ed., pp. 490, 1844; 3d ed., 1853; 4th ed., 1860; 5th ed., pp. 658, 1871.
235. Beck, T. R. & J. B. Med. Jurisp. (See 209.) 6th ed., 1838.
236. *Hodge, H. L. Criminal Abortion. Phila., 1839; Phila., 1854; 12mo. pp. 44, Phila., 1869; 4th ed., 1873.
237. Gross, S. D. Pathological Anatomy. 2 vols., 1839. 2d ed., 8vo. pp. 822, Phila., 1845; 3d ed., pp. 771, 1857.
238. †Montgomery. Signs and Symptoms of Pregnancy. pp. 220, Phila., 1839; from London ed., 1837. 2d Am. from 2d London ed., 8vo. pp. 568, Phila., 1857.
239. †Traill. Outlines of Med. Jurisp.; (from 2d Edinb. ed.) 8vo. pp. 234. Phila., 1841.
240. †Winslow, F. Plea of Insanity in Criminal Cases. 8vo. pp. 111. Boston, 1843.
241. Ray, I. Med. Jurisp. of Insanity. (See 234.) 2d ed., 1844.
242. Gross, S. D. Path. Anatomy. (See 237.) 2d ed., 1845.
243. †Esquirol. Mental Maladies. Notes, etc., by E. K. Hunt. 8vo. pp. 496. Phila., 1845.
244. †Christison. Poisons. Edited by Jno. Bell. 8vo. pp. 756. Phila., 1845. (Reprint 4th Edinb. ed.)
245. †Forbes, Tweedie, and Conolly. Cyclopædia of Practical Medicine, with additions, etc., by R. Dunglison. (Contains many valuable articles on Med. Jurisp.) 4 vols. 8vo. Phila., 1845.
246. †Guy, W. A. Forensic Medicine, with Notes, etc., by Chas. A. Lee. 8vo. pp. 771. New York, 1845.
247. †Taylor, A. S. Manual of Med. Jurisp., with Notes, etc., by R. E. Griffith, M.D. 8vo. pp. 539. Phila., 1845.
Same by Griffith. 2d Am. from 3d London ed., 1850.
Same by E. Hartshorne, M.D. 3d Am. from 4th London ed., 1853.
Same by Hartshorne. 4th Am. from 5th London ed., 1856.
Same by Hartshorne. 5th Am. from 7th London ed., 1861.
Same by C. C. Penrose, Esq. 6th Am. from 8th London ed., 1866.
Same by Jno. J. Reese, M.D. 7th Am. from 9th London ed., 1873.

248. Crozier. Life and Trial of Dr. Abner Baker. 8vo. pp. 152. Louisville, Ky., 1846.
249. *Purple, S. S. Corpus Luteum. (Med.-Legal, from N. Y. Jour. Med.) 8vo. pp. 13. N. Y., 1846.
250. Hall, B. F., Esq. Freeman Trial (Van Nest Murder). 1847.
251. Costill, O. H. Pract. Treatise on Poisons. 12mo. pp. 160. Phila., 1848.
252. *Taylor, A. S. Poisons, with Notes, etc., by R. E. Griffith. 8vo. pp. 687. Phila., 1848. 2d Am. from 2d London ed., 1859; 3d Am. from 3d London ed., pp. 788, Phila., 1875.
253. Beck, T. R. & J. B. Medical Jurisp. (See 209.) 10th ed., 1850.
254. Dean, Amos, Esq., Prof. Med. Jurisp., etc. Medical Jurisprudence. 8vo. pp. 664. Albany, N. Y., 1850. 2d ed., 1854; 3d ed., 1873.
255. Bemis, G., Esq. Parkman-Webster Murder. Boston, 1850.
256. †Taylor, A. S. Manl. of Med. Jurisp. (See 247.) 2d Am. ed., 1850.
257. *Dalton, J. C. Corpus Luteum. Trans. Am. Med. Asso., vol. 4, 1851.
258. *Storer, D. H. Address on Med. Jurisp. Boston, 1851.
259. *Binney, H., Esq. Coroner, Jurisdict. of. Phila., 1853.
260. Ray, I. Med. Jurisp. of Insanity. (See 234.) 3d ed., 1853.
261. *Taylor, A. S. Manl. Med. Jurisp. (See 247.) 3d ed., 1853.
262. Dean, Amos, Esq. Medical Jurisp. (See 254.) 2d ed., 1854.
263. Hodge, H. L. Criminal Abortion. (See 236.) 2d ed., 1854.
264. Wharton, Francis, Esq., and Stillé, Moreton, M.D. Medical Jurisprudence. 8vo. pp. 815. Phila., 1855. 2d ed., "Wharton and Stillé," and Prof. Alfred Stillé, M.D., pp. 1031, 1860; 3d ed., "Wharton and Stillé," and Drs. S. Ashhurst, Sinkler, and Amory, two vols. in three, Phila., 1873.
265. Wharton, F., Esq. Mental Unsoundness. Phila., 1855.
266. Hamilton, F. H. Deformities after Fractures (Malpractice). 8vo. pp. 99, Phila., 1855, and Tr. Am. Med. Asso., vols. 8, 9, 10. Treatise on Fractures and Dislocations, 8vo. pp. 757, Phila., 1860; 5th ed., 1875.
267. *Wetherill. Adipocere and its Formation. Folio, pp. 25. Phila., 1855, and in Tr. Am. Philosoph. Society, vol. 11, Phila.
268. *Lee, C. A. Case of John Hendrickson, Jr., for Wife-murder (Poison). 8vo. pp. 41. N. Y., 1855.
269. Purple, S. S. Wounds of Heart, and their Relations to For. Med., with 42 Cases. N. Y. Med. Times, May, 1855.
270. †Brierre de Boismont. Hallucinations. (Am. from 2d Paris ed.) 8vo. pp. 553. Phila., 1855.
271. *Gilman, C. R. Relations of Medical to Legal Profession. 8vo. pp. 26. N. Y., 1856.
272. †Taylor, A. S. Manual Med. Jurisp. (See 247.) 4th Am. ed., 1856.
273. Gross, S. D. Path. Anat. (See 237.) 3d ed., 1857.
274. *Semmes, A. J. Med.-Legal Duties of Coroners. 8vo. pp. 16, and Tr. Am. Med. Asso. Phila., 1857.
275. *Jarvis, E. Criminal Insane. 8vo. pp. 39. Utica, N. Y., 1857.
276. *Earle, P. Parish Will Case (Apoplexy and Paralysis). 8vo. pp. 50. N. Y., 1857.
277. *Watson, Browne, etc. Parish Will Case. N. Y., 1857.
278. *Gilman, C. R. Case of C. B. Huntington (Insanity). 8vo. pp. 24. N. Y., 1857.
279. *Suffolk Dist. Med. Society. Criminal Abortion. 8vo. pp. 13. Boston, 1857.
280. †Otto, J. Poisons, by W. Elderhorst. N. Y., 1857.
281. †Montgomery. Signs and Symptoms of Pregnancy. (See 238.) 2d Am. ed., 1857.
282. *Reese, D. M. Moral Insanity, Med. Jurisp. of. 8vo. pp. 26, and Tr. Am. Med. Asso. Phila., 1858.
283. *Coventry, C. B. Med. Jurisp. of Insanity. 8vo. pp. 56, and Tr. Am. Med. Asso. Phila., 1858.

284. *Perkins, R. G. Insanity in its Legal Relations. 8vo. pp. 24. N. Y., 1858.
285. *Davis, T. G. C. Plea of Insanity in Case of R. C. Sloo. 8vo. pp. 53. St. Louis, Mo., 1858.
286. †Bucknill and Tuke. Manual of Psycholog. Med. Phila., 1858.
287. *Fleming, A. Blood Stains. Pittsburg, Pa., 1861, and Am. Journ. Med. Sci., 1859.
288. *Wright, M.D. Drunkenness and Inebriate Asylums. 8vo. pp. 22. Columbus, O., 1859.
289. †Taylor, A. S. Poisons. (See 252.) 2d Am. ed., 1859.
290. Elwell, J. J., M.D., Esq. Malpractice and Medical Evidence. 8vo. pp. 588. N. Y., 1860. 2d ed., 1866 (?); 3d ed., 8vo., pp. 600, 1871.
291. Hall, A. G. Institutes of Med. Jurisp. ("*A senseless monthly serial of a quack, having no reference, except in name, to Med. Jurisp.*") 8vo. pp. 576. Boston, 1860.
292. Beck, T. R. and J. B. Med. Jurisp. (See 209.) 11th ed., 1860.
293. Ray, I. Med. Jurisp. of Insanity. (See 234.) 4th ed., 1860.
294. Wharton and Stillé. Med. Jurisp. (See 264.) 2d ed., 1860.
295. *Wharton, F. Involuntary Confessions. 8vo. pp. 36. Phila., 1860.
296. *Wright, T. L. Med. Leg., Inquiry on Influence of Chloroform. 8vo. pp. 32. Columbus, O., 1860.
297. †Winslow, F. Brain and Mind. 1st Am. ed., Phila., 1860.

N.B. "*War between the States,*" 1861–1865.

298. †Taylor, A. S. Manl. Med. Jurisp. (See 247.) 5th ed., 1861.
299. *Swinburne, John. Case of Rev. H. Budge (Wife-murder). 8vo. pp. 94. Albany, 1862, and Tr. Med. Soc. State of N. Y., 1862.
300. *Swinburne, J. Trial of Hendrickson (Wife-murder. Aconite). 8vo. pp. 16. Phila., 1862.
301. Beck, T. R. and J. B. Med. Jurisp. (See 209.) 12th ed., 1863.
302. *Parigot, J. Legislation on Insanity. 8vo. pp. 14. N. Y., 1865.

302*a*. Elwell's Malpractice and Med. Ev. (See 290.) 2d ed., 1866 (?).

303. Seguin. Idiocy. 8vo. pp. 457. N. Y., 1866.
304. Hammond, W. A. Insanity in its Medico-legal Relations. 8vo. pp. 72. N. Y., 1866.
305. Storer, H. R. Why Not? (Abortion.) 12mo. pp. 91. Boston, 1866. [2d ed., 1871?]
306. †Winslow, F. Obscure Dis. Brain and Mind, 2d Am. from 3d Lond. ed. 8vo. pp. 483. Phila., 1866.
307. Wormley, Theo. G. Micro-Chemisty of Poisons. 8vo. pp. 668. N. Y., 1867.
308. Day, A. Methomania. 16mo. Boston, 1867.
309. Storer, H. R. Is it I? (Abortion.) 12mo. pp. 154. Boston, 1867.
310. *Le Prohon. Voluntary Abortion. 8vo. pp. 24. Portland, Me., 1867.
311. *Wetmore, E. Law of New York regarding the Insane. 8vo. pp. 35. Utica, 1867.
312. *Forbes, W. S. History of Anatomy Act of Pa. 8vo. Phila., 1867.
313. †Maudsley. Mind, Physiol. and Pathol. of. 8vo. pp. 442. N. Y., 1867. 2d ed., 1871.
314. Storer and Heard. Criminal Abortion. 8vo. pp. 215. Boston, 1868.
315. *Todd, J. Serpents in the Dove's Nest (Abortion). 8vo. pp. 28. Boston, 1868.
316. *Lee, C. A. Report on Insanity. 8vo. pp. 32. Phila., 1868.
317. Ordronaux, John. Jurisprudence of Medicine in its Relations to the Laws of Contracts, Torts, and Evidence. 8vo. pp. 310. Phila., 1869.
318. Ordronaux, J. Appointment of a Commissioner to examine Witnesses in Med.-legal Trials. Tr. Am. Med. Asso., 1869.
319. Hodge. Criminal Abortion. (See 236.) 4th ed., 1869.

320. Richardson, Joseph G. Blood Stains. Am. Journ. Med. Sci., July, 1869.
321. Echeverria. Epilepsy. 8vo. pp. 386. N. Y., 1870.
322. *Hammond, W. A. Case of Daniel McFarland (Insanity). 8vo. pp. 35, N. Y., 1870, and in Quart. Journ. Psychol. Med.
323. *Lee, Charles A. Case of Carlton Gates (Insanity). 8vo. pp. 30. N. Y., 1870, and in First Series of Papers of N. Y. Med.-Legal Soc.
324. *Ray, I. Trial of John Reynolds. N. Y., 1870.
325. *Nebinger. Criminal Abortion. 8vo. Phila., 1870.
326. Hammond, W. A. Diseases of the Nervous System. 8vo. pp. 754. N. Y., 1871. (6th ed., 1876.)
327. Storer, H. R. Reflex Insanity in Women. 8vo. pp. 236. Boston, 1871.
328. Calkins, A. Opium and the Opium Appetite. 8vo. pp. 390. Phila., 1871.
329. Ray, I. Med. Jurisp. of Insanity. (See 234.) 5th ed., 1871.
330. Elwell, J. J. Malpr. and Med. Evidence. (See 290.) 3d ed., 1871.
331. *Gray, J. P. Insanity, Dependence on Physical Dis. 8vo. Utica, N. Y., 1871.
332. *Conklin, W. J. Relations of Epilepsy to Insanity and Med. Jurisp. 8vo. pp. 43. Dayton, O., 1871.
333. *Dimon, D. Freeman Trial (Murder). Auburn, N. Y., 1871.
334. †Blandford. Insanity, Medical and Legal, with a Synopsis of the laws of the several States of the Union respecting the confinement of the Insane, by I. Ray. 8vo. pp. 472. Phila., 1871.
335. †Maudsley. Body and Mind. 12mo. pp. 155. N. Y., 1871.
336. †Maudsley. Mind, Physiology and Pathol. of. (See 313.) 2d ed., 1871.
337. Delafield, F. Post-mortem Examinations. 8vo. pp. 376. N. Y., 1872.
338. Fisher, T. W. Plain Talk about Insanity (Med.-legal). 8vo. pp. 97. Boston, 1872.
339. Day, A. The Opium Habit. N. Y., 1872.
340. *Peet, I. L. Physical Status and Criminal Responsibility of the totally uneducated Deaf and Dumb. 8vo. pp. 31. N. Y., 1872, and in First Ser. Papers N. Y. Med.-Legal Soc.
341. *Van de Warker Detection of Criminal Abortion. 8vo. pp. 88. Boston, 1872.
342. *New York Med.-legal Society. Report on Criminal Abortion. 8vo. pp. 15. N. Y., 1872.
343. *Crothers, T. D. Trial of Mrs. Dr. E. Burleigh (Abortion). 8vo. Albany, 1872.
344. *Williams, P. C. Ketchum-Wharton Trial (Antimony). 8vo. pp. 31. Baltimore, 1872, and Med. and Surg. Report., Phila., vol. xxvi. (See also Am. Journ. Med. Sci., April, 1872.)
345. *Wey, W. C. Medical Responsibility and Malpractice. 8vo. pp. 35. Albany, 1872.
346. *Stevens, T. M. Med.-legal Science. 8vo. Trans. Ind. State Med. Soc. Indianapolis, 1872.
346*a*. Dean, Amos, Esq. Med. Jurisp. (See 254.) 3d ed., 1873.
347. Ray, I. Contributions to Mental Pathology. 8vo. pp. 558. Boston, 1873.
348. Hammond, W. A. Insanity in its Relations to Crime. 8vo. pp. 77. N. Y., 1873.
349. Wharton and Stillé. Med. Jurisp. (See 264.) 3d ed., 1873.
350. Hodge. Criminal Abortion. (See 236.) 4th ed., 1873.
351. *Stevens, T. M. Expert Testimony. 8vo. Indianapolis, 1873, and in Ind. Med. Journ.
352. *McClelland. Civil Malpractice. 8vo. pp. 74. Chicago, 1873.
353. *Field, D. D., Esq. Emotional Insanity. 8vo. N. Y., 1873.
354. *Clinton, H. L., Esq. Defence of Insanity in Criminal Cases. N. Y., 1873.
355. *Morse, D. A. Dipsomania and Drunkenness. pp. 52, and in Ohio State Med. Soc. Trans., 1873.

356. *Bell, Clark, Esq. Inaug. Address N. Y. Med.-Legal Soc. 8vo. pp. 11. N. Y., 1873.
357. Echeverria. Epilepsy in relation to Med. Jurisp. and Epileptic Insanity. Am. Journ. Insanity, Utica, April and July, 1873.
358. †Taylor, A. S. Principles and Practice of Med. Jurisp. (Reprint of 2d London ed.) 8vo. 2 vols. Phila., 1873.
359. †Taylor, A. S. Manual Med. Jurisp. (See 247.) 7th Am ed., 1873.
360. †Tuke, D. H. Influence of Mind on Body. 8vo. pp. 415. Phila., 1873.
361. †Wynter, A. Borderlands of Insanity. Am. ed. 12mo. pp. 314. N. Y., 1873.
362. Reese, Jno. J. Manual of Toxicology. 8vo. pp. 507. Phila., 1874.
363. N. Y. Med.-Legal Soc. "First Series of Papers." 8vo. pp. 552. N. Y., 1874. (By Judge Campbell, Wm. and Jacob Shrady, and Tillou, Esq'rs, Mr. I. L. Peet, and Drs. O'Dea, Rogers, Lee, Hammond, Burr, Clymer, De Marmon, Parsons, and Peters.)
364. *Bell, C., Esq. Inaug. Address N. Y. Med.-Legal Soc. 8vo. pp. 23. N. Y., 1874.
365. *Beard, G. M. Legal Responsibility in Old Age. 8vo. pp. 42. N. Y., 1874.
366. *Morse, D. A. General Paralysis and Blackburn Case. pp. 120. 1874.
367. *Morse, D. A. Monomania. pp. 46. This and 366 in Ohio State Med. Soc. Trans., 1874.
368. *Clymer, M. Influence of Epilepsy on Criminal Responsibility. 8vo. pp. 25. Phila., 1874.
369. *Howard, E. L. Legal Relations of Emotional Insanity. 8vo., and Trans. Am. Med. Assoc. Phila., 1874.
370. *Peugnet, E. Gunshot Wounds of Abdomen (Stokes-Fisk Murder). N. Y., 1874.
371. †Maudsley. Responsibility in Mental Disease. 8vo. pp. 313. N. Y., 1874.
372. †Bucknill and Tuke. Manual of Psycholog. Med. 8vo. Phila., 1874.
373. *Richardson, Jos. G. Value of High Powers in Blood-Stains. 8vo. pp. 12, and in Am. Journ. Med. Sci., July, 1874, and London Mic. Journ., Sept. 1874.
374. *Richardson, J. G. Diagnosis of Blood-Stains. pp. 5. Am. Journ. Med. Sci., April, 1875.
375. Richardson, J. G. Improved Method for Micro-Spectrosc. Test for Blood-Stains. Phila. Med. Times, Nov. 1875.
376. *Woodward, J. J. Blood-Stains in Criminal Cases. pp. 12, and in Am. Journ. Med. Sci., January, 1875.
377. Smith, J. E. Diagnosis of Blood Stains. Cinn. Med. Times, April, 1875.
378. *Ray, I. Duncan Will Case, 1875.
379. *Allen, N. State Med. in its relations to Insanity. Boston, 1875.
380. *Bell, C., Esq. Inaug. Ad. N. Y. Med.-Legal Soc. 8vo. pp. 16. N. Y., 1875.
381. †Taylor, A. S. Poisons. (See 252.) 3d ed., 1875.
382. †Sheppard. Madness—Med., Social, and Legal, from London ed. of 1873. 8vo. pp. 186. Phila., 1875.
383. †Poppesis, B. Hermaphrodism (Med.-legal), Translated from the French by Dr. E. W. Sawyer, Chicago, 1875.
384. †Sieveking. Med. Adviser in Life Insurance, from London ed. of 1874. 12mo. Phila., 1875.
385. Cowperthwait, A. C. Insanity in its Med.-legal Relations. 8vo. pp. 80. Phila., 1876.
386. Hammond, W. A. Diseases of the Nervous System. (See 326.) 6th. ed., 1876.
387. *Bell, C., Esq. Valedict. Ad. N. Y. Med.-Legal Soc. 8vo. pp. 26. N. Y., 1876.
388. †Brown, J. H. B. Jurisp. of Insanity (from the 2d English ed.). 8vo. pp. 713. Phila., 1876.

389. †Naquet. Legal Chemistry (English translation from French). [It has 16 pp. Bibliog. of Toxicology, etc.] 12mo. pp. 175. N. Y., 1876.
390. †Woodman and Tidy. Handy-book of For. Med. and Toxicol. Phila., 1876. (In press, August, 1876.)

Index to Subjects in the American Bibliography,

201 to 390.

General Subject.—Beck, T. R. 209. Beck, J. B. 227. Bell, C. 356, 364, 380, 387. †Chitty, 231. †Cooper, 207. Dean, 254. Dunglison, 214. †Forbes, etc., Cycl. Pract. Med. 245. Gilman, 271. †Guy, 246. Hall, 291. Hance, 219. N. Y. Med.-Legal Society Papers, 363. Rush, 202. †Ryan, 223. Stevens, 346. Storer, 258. †Taylor, 247, 358. †Traill, 239. Webster, 210. Wharton and Stillé, 264. Williams, 228. †Woodman and Tidy, 390.

Abortion and Infanticide.—Beck, J. B. 205. Crothers, 343. Hodge, 236. Le Prohon, 310. Nebinger, 325. N. Y. Med.-Legal Society, 342. Storer, 305, 309. Storer and Heard, 314. Suffolk Dist. Med. Society, 279. Todd, 315. Van de Warker, 341.

Alienation, Mental. (*Intemperance; Deaf and Dumb.*)—Allen, 379. Beard, 365. †Blandford, 334. †Brierre de Boismont, 270. †Brown, 388. †Bucknill and Tuke, 286. Clinton, 354. Clymer, 368. †Combe, 226. Conklin, 332. Coventry, 283. Cowperthwait, 385. †Cox, 201. Davis, 285. Earle, 276. Echeverria, 321, 357. †Esquirol, 243. Field, 353. Fisher, 338. Gilman, 271. Gray, 331. Hammond, 304, 326, 348. †Highmore, 208. Howard, 369. Jarvis, 275. Lee, 323. †Maudsley, 313, 335, 371. Morse, 366, 367. N. Y. Med.-Legal Society Papers, 363. Parigot, 302. Perkins, 284. †Prichard, 232. Ray, 234, 324, 347, 378. Reese, 280. Rush, 203. Seguin, 303. †Sheppard, 382. Simons, 216. Storer, 327. †Tuke, 360. Watson, Browne, etc. 277. Wetmore, 311. Wharton, 265, 295. †Winslow, 240, 306. Wright, 296. †Wynter, 361. (*Intemperance*).—Calkins, 328. Day, 308, 339. Morse, 355. N. Y. Med.-Legal Society Papers, 363. Wright, 288. (*Deaf and Dumb*).—Peet, 340.

Asphyxia, etc.—Coley, 222. Gross, 225. †Taylor, 233.

Blood Stains.—Fleming, 287. Richardson, 320, 373, 374, 375. Smith, 377. Woodward, 376.

Coroner.—Binney, 259. Semmes, 274.

Life Insurance.—N. Y. Med.-Legal Society Papers, 363. †Sieveking, 384.

Malpractice and Medical Evidence.—Elwell, 290. Hamilton, 266. Lobstein, 218. McClelland, 352. Ordronaux, 317, 318. Stevens, 351. Warren, 213. Wey, 345.

Obstetric Medical Jurisprudence.—Dalton, 257. †Montgomery, 238. Poppesio, 383. Purple, 249.

Pathological Anatomy.—Delafield, 337. Forbes, 312. Gross, 237. Horner, 217. †Morgagni, 211. Wetherill, 267.

Poisons, Toxicology, Legal Chemistry.—†Christison, 244. Coley, 222. Costill, 251. Ducachet, 204. Ducatel, 224. Lee, 268. †Naquet, 389. †Orfila, 206, 212. †Otto, 280. Reese, 362. Swinburne, 300. †Taylor, 252. Wormley, 307.

Trials, Legal, Celebrated Cases.—Baker, Dr. Abner. Life and Trial of, 248. Blackburn Case (General Paralysis), 366. Budge, Rev. H. (Wife-murder), 299. Burleigh, Mrs. Dr. E. (Abortion), 343. Chapman, Lucretia, Trial of, for Poisoning, 221. Duncan Will Case, 378. Fisk, Jas., Stokes-Fisk Murder (Abdominal Wounds), 370. Freeman Trial (Murder), 250, 333. Gates, Carlton, Case of (Insanity), 323. Hendrickson, Jno., Wife-murder (Aconite), 268. Huntington, C. B., Case of (Insanity), 278. Ketchum-Wharton Trial (Antimony), 344. McFarland, Dan'l, Case of (Insanity), 322. Parish Will Case (Apoplexy and Paralysis), 276, 277. Parkman-Webster Murder, 255. Reynolds, Jno., Trial of, 324. Steinecke-Schoeppe Case (Poisoning), 363.

Wounds.—Peugnet, 370. Purple, 269.

General Alphabetical Index.

N. B.—Under each letter, the authors are recorded in the following national order: Italy, Germany, France, Great Britain, and the United States. Foreign authors, recorded among the American, are designated by a †.

Wagner, 70. Wildberg, 59. Wolf, 24.—Watson, 167. Woodman and Tidy, 164.—Warren, 213. Watson, Browne, etc. 277. Webster, 210. Wetherill, 267. Wetmore, 311. Wey, 345. Wharton, 265, 295. Wharton and Stillé, 264. Williams, P. C. 344. Williams, S. W. 228. †Winslow, 240, 297, 306. †Woodman and Tidy, 390. Woodward, 376. Wormley, 307. Wright, M. D. 288. Wright, T. L. 296. †Wynter, 361.

Zacchias, 2.—Zittman, 28.

For bibliographical and other aid I owe hearty thanks to my colleagues, Professors S. M. Bemiss, M.D., T. G. Richardson, M.D., Frank Hawthorn, M.D. (deceased), and to Drs. W. H. Watkins, and E. Dreifus, of New Orleans; to Dr. John S. Billings, Assistant-Surgeon, U. S. A. (Surgeon-General's Library); to Dr. Francis H. Brown, of Boston; to Professors S. D. Gross, and John J. Reese, and Dr. Joseph G. Richardson, of Philadelphia; to Mr. Clark Bell, ex-President of the N. Y. Medico-Legal Society, and Prof. W. A. Hammond, of New York City; to Prof. A. B. Palmer, M.D., of the Univ. of Michigan; to Prof. D. A. Morse, of Ohio; and to Prof. A. S. Taylor, of London, England. Obligations to others have been acknowledged in the notes to the Address.

NATIONAL LIBRARY OF MEDICINE
Health, Education, and Welfare, Public Health Service
U.S. Department of Washington, D.C.